

1993 - 1995 Catalog







General Catalog 1993 - 1995

Main Campus

2100 Silas Creek Parkway Winston-Salem, North Carolina 27103-5150 *(919) 723-0371

West Campus

1300 Bolton Street Winston-Salem, North Carolina 27103-5150 *(919) 760-2373

*Effective November, 1993, use area code 910.

All statements in this publication are announcements of present policies and are subject to change at any given time without prior notice. Forsyth Technical Community College reserves the right to make changes in program requirements and offerings, in regulations, and in fees. FTCC also reserves the right to discontinue at any time programs or courses described in this publication. While every effort will be made to give advance notice of any changes of programs or courses, such notice is neither guaranteed nor required. FTCC further reserves the right, at any time, to request the student to withdraw when it considers such action to be in the best interest of the student and FTCC.

15,000 printed @ \$ 1.13 per copy



A Message from the President

Perhaps you are debating the choice of a college to attend. If you are, I encourage you to consider Forsyth Technical Community College as your choice of a college of quality programs and a reputation for instructional integrity.

Forsyth Technical Community College is one of North Carolina's fifty-eight community colleges. The college is committed to providing students a quality program at a reasonable cost. The instructional programs are strategically developed and consistently updated to ensure maximum success for students as they strive to graduate and seek employment, retrain and/or make career advancement.

Our students are the reason for the existence of this college. The decision to take advantage of the educational opportunities and ensuing benefits is up to you. The administration and faculty are available to assist you and to provide you the best educational programs in the North Carolina Community College System.

This catalog describes courses and programs that may very well hold the key to your future educational success and personal happiness. As you review the program offerings, you will find numerous technical and vocational programs and a college transfer program. Your enrollment in, and successful completion of, one of the programs may be the best investment you can make toward reaching your educational goals.

Programs for enrichment and self-improvement of the adult community are also offered by FTCC. Adults may enroll in classes to improve existing skills, achieve competency in subject areas leading to a high school diploma, or receive instruction in other academic, vocational, or technical fields.

Modern facilities and up-to-date equipment assure you of an excellent learning environment. A new Health Technologies building (Greene Hall) is open along with a new student services/classroom/lab facility (Allman Center). These new buildings provide FTCC with some of the most modern facilities in the community college system.

Should you choose to enroll at Forsyth Technical Community College, I welcome you to our family and hope you will be successful in fulfilling your educational goals. I hope your experiences are enjoyable and contribute success and happiness now and in the future. I urge you to take full advantage of the best educational bargain in Winston-Salem and North Carolina.

An "open door" admissions policy enables people to continue their education with a minimum amount of enrollment hassle. Every effort is made to provide you with guidance and assistance in making your college entry and success a reality.

Please feel free to contact any member of the administration, faculty, staff, or me if you need assistance. I look forward to seeing you on our campus!

TABLE OF CONTENTS

	Academic Calendar	6 - 7
	History	8
	Purpose	8
	Equal Opportunity/Affirmative Action	9
	Programs of Study	11
	Admissions	12 - 15
	Tuition and Fees	16 - 18
	Academics	19 - 30
	Student Code of Conduct and Responsibilities	31 - 39
	Services for Students	40 - 44
	Student Clubs and Organizations	45 - 46
	Student Financial Services	47 - 53
Contin	uing Education	
	Adult Continuing Education	54 - 64
Associa	ate Degree Programs	
	Associate in Applied Science Degree Programs	65 - 90
Pretech	hnical Programs	
	Pretechnical Programs	91 - 92
College	e Transfer	
	College Transfer Programs	93 - 96
Diplom	na Programs	
	Vocational Diploma Programs	97 - 116
Certific	cate Programs	
	Certificate Programs	117 - 128
Techni	ical Specialty Diploma	
	Imaging Technology	129 - 130
Course	Descriptions	
	Course Descriptions	131 - 206
Faculty	y/Staff Directory	
Ĭ	Faculty / Staff Directory	207 - 220
	Maps	
	What's It Mean?	
	Notes	



Forsyth Technical Community College is an open-door institution which offers adults the opportunities for learning that leads to gainful employment and effective community membership.

rmation

ACADEMIC 1993-1994 CALENDAR

FALL QUAR'	ΓER, 1993
Monday, August 30	Faculty/Staff Orientation
Tuesday, August 31 &	
Wednesday, September 1.	Registration (FWD)
Thursday, September 2 &	
Friday, September 3	Faculty Work Days
Monday, September 6	Labor Day Holiday
Tuesday, September 7	First Day of Classes
Wednesday, September 8	Last Day to Add Classes
Thursday, September 30	Last Day to Drop Without Penalty
Monday, November 22	Last Day of Classes
Tuesday, November 23	Grade Posting (FWD)
Wednesday, November 24.	Faculty Work Day
Thursday, November 25 &	
Friday November 26	Thanksgiving Holidays

WINTER QUAL	RTER, 1993
	Registration (FWD)
Tuesday, November 30	First Day of Classes
Wednesday, December 1	Last Day to Add Classes
Thursday, December 23	Last Day to Drop Without Penalty
Friday, December 24 through	
Friday, December 31	
Monday, January 3	
Monday, January 17	Martin Luther King's Birthday (Holiday)
Wednesday, February 23	Last Day of Classes
Thursday, February 24	Grade Posting (FWD)
Friday, February 25	Faculty Work Day

SPRING	QUAI	RTER, 1994	
25 1 721	20	Danistant	

Tuesday, March 1	Faculty Work Day
Wednesday, March 2.	First Day of Classes
Thursday, March 3	Last Day to Add Classes
Friday, March 25	Last Day to Drop Without Penalty
Friday April 1	Easter Holiday
Wednesday, May 18	Last Day of Classes
Thursday, May 19	Grade Posting (FWD)
Friday, May 20	Faculty Work Day
	Graduation (FWD)

SUMMER QUARTER, 1994

Tuesday, May 24	Registration (FWD)
Wednesday, May 25 through	
Friday, May 27	Faculty Work Days
Monday, May 30	Memorial Day Holiday
Tuesday, May 31	First Day of Classes
Wednesday, June 1	Last Day to Add Classes
Thursday, June 23	Last Day to Drop Without Penalty
Monday, July 4	Independence Day Holiday
Tuesday, August 9	Last Day of Classes
Wednesday, August 10	Grade Posting (FWD)
Thursday, August 11	Faculty Work Day
Friday, August 12	Graduation (FWD)
Monday, August 15 through	
Friday August 26	Annual Leave Period (Faculty & Staff)

ACADEMIC 1994-1995 CALENDAR

FALL QUARTER, 1994

Monday, August 29	. Faculty/Staff Orientation
Tuesday, August 30 &	
Wednesday, August 31	Registration (FWD)
Thursday, September 1 &	
Friday, September 2	Faculty Work Days
Monday, September 5	Labor Day (Holiday)
Tuesday, September 6	First Day of Classes
Wednesday, September 7	Last Day to Add Classes
Thursday, September 29 Last D	ay to Drop Without Penalty
Monday, November 21	Last Day of Classes
Tuesday, November 22	Grade Posting (FWD)
Wednesday, November 23	Faculty Work Day
Thursday, November 24 &	
Friday, November 25	Thanksgiving (Holidays)

WINTER QUARTER, 1994

Monday, November 28	Registration (FWD)
Tuesday, November 29	Faculty Work Day
Wednesday, November 30	First Day of Classes
Thursday, December 1	Last Day to Add Classes
Friday, December 23 through	
Friday, December 30 Chr	istmas and New Year (Holidays)
Monday, January 2	Classes Resume,
Last	Day to Drop Without Penalty
Monday, January 16 Martin I	Luther King's Birthday (Holiday)
Thursday, February 23	Last Day of Classes
Friday, February 24	Grade Posting (FWD)

SPRING QUARTER, 1995

Monday, February 27	Registration (FWD)
Tuesday, February 28.	Faculty Work Day
Wednesday, March 1	First Day of Classes
Thursday, March 2	Last Day to Add Classes
Friday, March 24	Last Day to Drop Without Penalty
Friday, April 14	Easter (Holiday)
Wednesday, May 17	Last Day of Classes
Thursday, May 18	Grade Posting (FWD)
Friday, May 19	Faculty Work Day
Monday, May 22	Graduation (FWD)

SUMMER QUARTER, 1995

Tuesday, May 23	Registration (FWD)
Wednesday, May 24 throug	h
Friday, May 26	Faculty Work Days
Monday, May 29	Memorial Day (Holiday)
Tuesday, May 30	First Day of Classes
Wednesday, May 31	Last Day to Add Classes
Thursday, June 22La	ast Day to Drop Without Penalty
Tuesday, July 4	Independence Day (Holiday)
Tuesday, August 8	Last Day of Classes
Wednesday, August 9	Grade Posting (FWD)
Thursday, August 10	Faculty Work Day
Friday, August 11	Graduation (FWD)
Monday, August 14 through	1
Friday August 25	Annual Leave Period (Faculty & Staff)



HISTORY

Forsyth Technical Community College traces its beginning to early adult and high school vocational courses which were available in Winston-Salem. In 1958 a Chamber of Commerce study recommended that an industrial education

center be built to provide the trade and technical training needed by local industry. A bond issue provided the money to start construction of two buildings late in 1959 and the first adult classes were begun in October of 1960. In 1963 a third building was constructed, and new technical programs were added. That same year, the North Carolina Legislature passed the Community College Act, creating a statewide system of community colleges, technical institutes, and industrial educational centers. In January 1964 the name of the school was changed to Forsyth Technical Institute. The operation of the school was transferred from the Winston-Salem/Forsyth County Schools to a local board of trustees to govern the Institute following policies established by the State Board of Education and the State Department of Community Colleges.

Additional building construction throughout the years has allowed for program development and expansion to meet the increasing need for vocational and technical training. In 1984 a bond referendum provided funds for the acquisition of Dalton Junior High School, which became the Institute's West Campus, and for the construction of a high technology building, Hauser Hall. In July 1985 Forsyth Technical Institute became Forsyth Technical College. In December 1987 Forsyth Technical College became Forsyth Technical Community College.

PURPOSE

Forsyth Technical Community College is an open-door institution which offers adults the opportunities for learning that leads to gainful employment and effective community membership.

FTCC is dedicated to providing these opportunities through education and training in college transfer, vocational/technical, and continuing education areas.

The purpose of FTCC is to provide:

- effective teaching and academic support services for adults.
- opportunities for adults who need to master basic education skills.
- vocational education and training for adults who are preparing to enter skilled trades.
- technical education and training for adults wishing to enter occupations in business, industry, and health services.
- technical, vocational, and self-improvement courses for adults.
- education for adults who wish to further their schooling at four-year institutions.
- employee training and retraining for business and industry in response to changing economic conditions.

EQUAL OPPORTUNITY/ AFFIRMATIVE ACTION

DISCRIMINATION

Forsyth Technical Community College is an equal opportunity institution, in compliance and agreement with the provisions set forth in Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. No person shall be discriminated against on the basis of race, sex, religion, age, sexual orientation/preference, national origin, or disability, if otherwise qualified.

Applicants, employees, and students of FTCC may lodge grievances involving alleged violations of their rights under these provisions with the Equal Opportunity/ Affirmative Action Officer at (919) 343-4261 or the Assistant Secretary, Office for Civil Rights, 330 C. Street S.W., Washington, D.C. 20202. Inquiries may be directed to the equal opportunity affirmative action officer for employees and the dean of Student Services for students at FTCC.

AUXILIARY AIDS FOR STUDENTS WITH DISABILITIES

No student with impaired sensory, manual or speaking skills will be denied the benefits of, excluded from participation in, or otherwise subjected to discrimination under any education program or activity operated by FTCC because of the absence of educational auxiliary aids. Auxiliary aids include interpreters or other effective methods of making orally delivered materials available to students with hearing impairments, taped texts, readers for students with visual impairments, and other similar services and actions. FTCC will make every effort to provide auxiliary aids to students who require such assistance. However, FTCC is not required to and will not provide attendants, individually prescribed devices, readers for personal use or study, or other devices or services of a personal nature.

The student with a disability has the responsibility to notify the Special Services/ Testing/ADA coordinator of the need for educational auxiliary aids such as interpreters. The disabled student is required to notify the coordinator as soon as the student begins to seek application or registration since ample time is necessary for locating appropriate aids. The Special Services/Testing/ADA coordinator can be contacted at 723-0371 ext. 383. Deaf students may relay a written or verbal message by TDD or call the coordinator by TT at 723-3411.

LOCAL ADVISORY COMMITTEES

Each curriculum has its own advisory committee. The committees are composed of representatives of local businesses, industries, and education and community organizations.

The advisory committees provide the necessary contact between FTCC and the community in an effort to maintain current and relevant programs of instruction to meet the needs of the community.

LOCATION AND FACILITIES

The main campus is located at 2100 Silas Creek Parkway in the southwest section of Winston-Salem. The West Campus is located at 1300 Bolton Street at the intersection of Bolton Street and Silas Creek Parkway. The Health Technology curriculums are housed in the Allied Health Building at North Carolina Baptist Hospital and in the Bob H. Greene

Hall on the main campus. All campuses are easily accessible from US Highway 52, North Carolina Highway 150, and Interstate Highway 40.

An off-campus Individualized Learning Center is located at the Whitaker Care Center of Forsyth Memorial Hospital. ILC's are also available on main campus and West Campus.

HOURS OF INSTRUCTION

Classes are scheduled between the hours of 7 a.m. and 11 p.m., Monday through Friday. Some courses are offered on Saturdays.

Students in Health Technology curriculums (particularly nursing curriculums) can expect clinical practice to be scheduled during any part of the 24-hour day, seven days a week.

ACCREDITATION

FTCC is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the associate degree.

The Associate Degree Nursing curriculum and the Practical Nursing curriculum are accredited by the North Carolina State Board of Nursing. Respiratory Care Technology, Radiologic Technology, Nuclear Medicine Technology, Medical Sonography and Radiation Therapy Technology are accredited by the American Medical Association (AMA) through the Committee on Allied Health Education and Accreditation (CAHEA).

Electronics Engineering Technology, Manufacturing Engineering Technology, and Drafting and Design Engineering Technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

FTCC is a member in good standing of the American Association of Community Colleges.

REGIONAL AUTOMOTIVE TRAINING CENTER

FTCC was chosen to be a technical service training center for the Ford Motor Company in 1984. This center is one of only five college-based centers in the United States. This program provides the latest training primarily for Ford technicians on a

continuous basis, using Ford Motor Company's supplies, special tools, equipment, and technical materials. The Automotive Mechanics curriculum benefits through the use of the items provided by Ford Motor Company to keep the training consistent with new and advancing technology in the automotive field.



PROGRAMS OF STUDY

Some programs of study may be available both day and evening. For specific information, contact the Admissions Office.

ASSOCIATE IN APPLIED SCIENCE DEGREE

Accounting

Administrative Office Technology

Architectural Technology

Associate Degree Nursing

Automation/Robotics Technology

Banking and Finance

Business Administration

Business Computer Programming

Computer Engineering Technology

Drafting and Design Engineering

Technology

Early Childhood Associate

Electronics Engineering Technology

Horticulture Technology

Law Enforcement Technology

Manufacturing Engineering Technology

Marketing and Retailing

Medical Sonography

Microcomputer Systems Technology

Nuclear Medicine Technology

Paralegal Technology

Radiation Therapy Technology

Radiologic Technology

Respiratory Care Technology

COLLEGE TRANSFER

Associate in Arts

Associate in Science

VOCATIONAL DIPLOMAAir Conditioning, Heating, and

Refrigeration

Automotive Body Repair

Automotive Mechanics

Diesel Vehicle Maintenance

Electrical Installation

Electronic Servicing

Graphic Arts - Printing

Machinist

Plumbing and Pipefitting

Practical Nursing

Residential Carpentry

Welding

ADVANCED DIPLOMA

Electronic Servicing

Welding

Vascular/Cardiovascular Interventional

Technology

CERTIFICATE

Clerical Processing

COBOL Programming

Computerized Tomography

Customer Service

Diesel Vehicle Maintenance

Funeral Director

Magnetic Resonance Imaging

Manufacturing Engineering Technology

Microcomputing Systems Technology

Real Estate Technical Specialty

ADULT CONTINUING EDUCATION

Occupational Extension Programs

Management Development Training

Program

Vocational Technical Extension

Programs

New and Expanding Industry Training

Programs

Health-Related Training Programs

Community Service Programs

Academic Program

Literacy Education Programs

Adult High School Diploma Program

Adult Basic Education Program

Compensatory Education Program

General Educational Development

Program (GED)

Small Business Education Center

Special Seminars and Workshops

ADMISSIONS



ADMISSION REQUIREMENTS

Forsyth Technical Community College is an Equal Opportunity Institution and operates under an "open door" admissions policy. Admission to FTCC does not, however, imply immediate admission to the program desired by the applicant. Before a prospective student is admitted to a specific curriculum, placement tests will be scheduled and counseling interviews may be arranged. This process helps the students to evaluate their potential for success in their chosen field. When an evaluation of test scores and other evidence indicates a lack of readiness to enter a specific program, the applicants may be approved to the Pretechnical program or may be encouraged to reexamine their educational and occupational goals.

FTCC will accept credit from other technical institutes and colleges. For specific information refer to "Transfer Students." (p. 27).

Admission to Associate Degree Programs

High school graduation, or the equivalent, is required of all applicants for degree programs. The high school equivalency certificate or the state adult high school diploma is acceptable in lieu of a regular high school diploma.

Applicants for the associate degree programs who are not high school graduates may arrange to complete high school in the Continuing Education Adult High School Program or take the high school equivalency examination (GED).

Applicants for admission to the Drafting and Design Engineering Technology and Manufacturing Engineering Technology programs must present one unit of algebra and one unit of geometry. Business Computer Programming, Architectural Technology, Electronics Engineering Technology, and Automation/Robotics Technology applicants must present one unit of algebra. Applicants for admission to the Computer Engineering Technology program must present three units of mathematics beginning with Algebra I and one half-unit of typing. Applicants for admission to associate degree health programs

must present one unit in algebra, one unit in biology, and one unit in chemistry. Applicants to the Associate Degree Nursing program must have completed the unit of chemistry within a five-year period. High school physics is recommended for the Engineering Technology and Health Technology curriculums. Applicants for admission to College Transfer Associate in Arts and Associate in Science programs must present two units of algebra. Algebra II for Associate in Arts majors may be taken during the first quarter at FTCC.

Applicants for associate degree programs should submit scores on either the Scholastic Aptitude Test (SAT) or the Assessment and Placement Services Test (APS). Information concerning the SAT may be obtained from local high school counselors or the Career Guidance Center in Student Services. Information on and registration for the APS are available from the Admissions Office.

Applicants for programs may be subject to approval by the FTCC Admissions Review Committee for that program (particularly in the Health Technology programs). The members of the Admissions Review Committee come from instructional and administrative staff of the curriculums and the Student Services staff. The purpose of the committee is to evaluate all available data concerning each applicant. A majority of the committee must concur that applicants meet minimum criteria before they are admitted. Applicants for those programs in which the enrollment quota is filled before all applications are received will be informed that they may reapply for the next enrollment cycle. Some programs have more than a once-a-year enrollment cycle.

It should be noted that certain Health Technology programs have to admit applicants under state statutes of the licensure agencies. The North Carolina Board of Nursing has state statutes that identify reasons for prohibiting licensure for Associate Degree Nursing and Practical Nursing graduates. The reasons are presented during the admission process.

All students in Nuclear Medicine Technology, Radiologic Technology, and Radiation Therapy Technology come under the radiation exposure regulations of the state and federal governments (Radiation Safety Hazard Regulation). Any student who receives exposure in excess of permissible limits as defined by the regulations will be advised of the possible harmful effects and may be dropped from the curriculum. The regulations pertaining to students below the age of 18 are more stringent than those for the older student.

Admission to Diploma Programs

Applicants for one-year diploma programs must be high school graduates or meet North Carolina equivalency certificate (GED) standards. For non-high school graduates with special needs, however, exceptions may be made under certain circumstances in any program except Practical Nursing.

Applicants who are not high school graduates may arrange to complete high school in the Continuing Education Adult High School Program or take the high school equivalency examinations (GED) offered at the West Campus. Applicants may be admitted into some programs on the basis of high school records; however, scores on the SAT or the APS may be required. Questions concerning the need for testing should be directed to the Admissions Office.

Because of the specialized nature of some of the programs, one unit of high school algebra is recommended for Air Conditioning, Heating, and Refrigeration; Electrical Installation and Maintenance; Electronic Servicing; Machinist; and Practical Nursing. High school geometry is also recommended for Machinist. Biology is recommended before entering Practical Nursing. Algebra I and biology are required for entry into Respiratory Care Technology.

Admission to the Practical Nursing program and Respiratory Care Technology program may also be subject to approval by the Health Admissions Review Committee.

Admission to Continuing Education and Extension Programs

Persons enrolling must be 18 years old or older. Further information concerning admission and registration procedures may be obtained from the office of the dean of Continuing Education.

SPECIAL INFORMATION FOR FOREIGN STUDENTS

FTCC does not issue the I-20 Form required by the United States. FTCC will be glad to help interested students in gaining information about colleges and universities that do offer the I-20 Form. Foreign students under other types of visas are considered for admission through normal admissions procedures.

Applicants graduating from high schools outside the United States must produce a transcript and must demonstrate high school proficiency through satisfactory scores on either the GED or the APS. Applicants graduating from colleges and universities outside the United States are required to submit a translated transcript and may be required by an admissions counselor to take the APS.

RESIDENCY FOR TUITION PURPOSES

Under North Carolina law, each person must be classified as a resident or nonresident for tuition purposes. North Carolina law (G.S. 116-143.1) requires that to qualify as an in-state student for tuition purposes, a person must have established legal residence (domicile) in North Carolina and maintained that legal residence for at least 12 months immediately prior to classification as a North Carolina resident. All applicants for admission are required to make a statement as to their length of residence in the state.

To be eligible for classification as a resident for tuition purposes, applicants must establish that their position in the state currently is, and during the requisite 12-month qualifying period was, for purposes of maintaining a bona fide domicile rather than of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education. The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification.

Residency for tuition purposes is initially determined by an admissions counselor during the approval of each applicant for admission to FTCC. The residency determination is stated to the students in their admission approval letter. A student who is deemed to be out of state for tuition purposes has the right to complete the Residence and Tuition Status Application for further consideration and appeal. This form, with a written request for appeal, is submitted to the director of Admissions who reviews the initial determination and renders a decision within two weeks based on the additional information. The applicant may be requested to provide additional information before the decision is made. Students still dissatisfied with the residency decision made at this level may appeal in writing to the dean of Student Services. The dean of Student Services will review all information submitted by the applicant and may ask for additional information for clarity. The student's entire file will be reviewed. A decision will be made within two weeks and the student will be informed in writing.

Questions regarding residency status should be directed to the Admissions Office.

ADMISSIONS PROCEDURES

An applicant for admission to any degree or diploma program should:

- 1. Obtain an application form from the Admissions Office or from a high school counselor.
- 2. Submit the properly completed application to the Admissions Office.
- 3. Arrange to take the Assessment and Placement Services Test (APS) through the Admissions Office. Scholastic Aptitude Test (SAT) scores may be substituted for the APS. (ACT) scores may also be substituted for programs other than health.
- 4. Request that a transcript of all high school and post-high school academic work be sent directly to the Admissions Office.
- 5. Submit recommendations if requested.
- 6. Report for an interview, if requested, on the date scheduled by the Admissions Office. At this interview, test scores and previous academic records will be evaluated and the applicant will be advised as to eligibility for admission to the desired program. If an interview is not necessary, students will be notified of their status in writing.
- 7. Submit a properly completed health appraisal form when requested.
- 8. Participate in an orientation program as a condition of approval for every student admitted to FTCC.

Students who are currently enrolled and wish to be considered for another curriculum must update an application in the Admissions Office.

TUITION AND FEES

GENERAL TUITION AND FEES

Forsyth Technical Community College receives funds from local, state, and federal sources. Tuition charges are set by the State Board of Community Colleges and are subject to change without notice.

In-State Tuition:	\$13.25 per quarter hour
Out-of-State Tuition:	\$107.50 per quarter hour
Students enrolled for 12 cr	redit hours are considered full-time.
Students will be charged p	er credit hour up to 14 credit hours.

Example:	Hours taken	In State Tuition	Out of State Tuition
•	12	\$159.00	\$1,290.00
	13	\$172.25	\$1,397.50
	14	\$185.50	\$1,505.00
Lat	a registration fee	\$5.00	

No tuition is charged for noncredit classes in the Continuing Education Division. However, a registration fee of \$35.00 may be charged. No tuition or fee is charged for Adult Basic Education courses. Normal tuition rates will apply if courses are taken in the ILC. No tuition is charged for individuals aged 65 and over. Supply fees are set to meet instructional needs in certain types of courses. Some curriculums require a pre-admission physical examination which involves additional cost to the student.

POLICY ON RESTRICTIONS ON CLASS ADMISSION

No person may attend classes unless the registration procedure has been completed and all tuition and fees have been paid and all debts to the college settled.

STUDENT ACTIVITY FEE

It is the policy of FTCC that a \$5.00 student activity fee be charged. The activity fee for curriculum students will be collected during each quarter's registration.

Students become members of FTCC's Student Government Association when they pay the student activity fee. The term "activity fee" may be misleading because the fee is used for more than just providing activities. Below is a list of expenses covered by the student activity fee.

- 1. **Graduation expenses** are partially covered. It costs over \$25.00 per student to hold a graduation ceremony. Currently, students pay a graduation fee of \$10.00 for each diploma received.
- 2. **TECHNICALLY SPEAKING**, is a student newspaper published quarterly.
- 3. **Student activities and entertainment** such as cookouts, Christmas dances, and end-of-the-year Spring Flings are free to students.
- 4. **Athletic involvement** is provided for students by participation in Winston-Salem city league sports such as basketball and softball. Sporting equipment as well as registration fees are paid for out of the student activity fee budget.
- 5. All Student Government Association expenses are paid for out of student activity fee funds. Expenses include a portion of the student activities facilitator's salary, supplies and materials for use in the SGA Office, and all SGA printing expenses.

6. **Attendance at SGA conferences** is a major expense of the SGA. FTCC is a member of the North Carolina Comprehensive Community College (N4C) Student Government Association. The N4CSGA offers three conferences each year. These conferences offer workshops and seminars to better prepare students to lead the SGA's on their campuses.

For more details about the budget or to become involved in any of the activities listed above, contact the student activities facilitator in the Carolina Annex.

BOOKS AND SUPPLIES

Textbooks and supplies are not furnished by FTCC but are the responsibility of the student and may be purchased at the bookstore. The cost of books and supplies varies from curriculum to curriculum and from quarter to quarter.



UNIFORMS

Uniforms and other special wearing apparel will be paid for by the student. The initial cost of uniforms and special equipment in the various health curriculums is estimated at \$300.00. Students should inquire for details in the Admissions Office.



OTHER FEES

No laboratory breakage or property damage fees will be charged to students. However, in case of breakage or damage due to gross negligence or maliciousness, a student will be expected to reimburse FTCC. Academic credit and official transcripts may be withheld until proper payment is made.



GRADUATION FEE

A \$10.00 graduation fee will be charged to the student for each degree, diploma, and/or certificate that the student applies for. A \$10.00 nonrefundable graduation fee will also be charged to the Adult High School graduates. This fee is nonrefundable.



PARKING

Visitors are welcome on the campus of FTCC. Designated visitor parking areas will be indicated by campus signs. Any visitor receiving a ticket should return it to the person or office visited.

Students planning to park on campus are required to purchase a \$5.00 parking decal at the time of registration. Specific rules governing parking will be issued upon vehicle registration and may be found in the current issue of the Student Handbook.



LIABILITY INSURANCE FOR HEALTH STUDENTS

All health students must purchase annual liability insurance, which may vary according to program or insurance carrier, before engaging in lab or clinical practice. Health students who enter or re-enter at a quarter other than fall quarter will pay a prorated cost for that year.



TUITION REFUND OR TUITION CREDIT POLICY

(*This policy may change following the legislative session, summer 1993.)

Tuition and supply fees can be considered for a refund or a credit. Student activity fees will be refunded only when classes are cancelled. All requests are reviewed after the 15th class day.

Students who have attended a class(es) and withdrawn within ten calendar days after the first day of classes will be given two-thirds tuition refund. Students are not eligible for a tuition refund after ten (10) calendar days. Students who withdraw after the tenth calendar day are only eligible for tuition credit and will have to produce supporting evidence of reason for withdrawal (employer's excuse on letterhead, doctor's excuse, etc.). Without supporting evidence, the Tuition Credit Request will be denied.

Students are not eligible for a tuition credit after the 28th day (50% point) of the quarter calendar.

A credit may not be converted to a refund, nor a refund to a credit after being reviewed by the dean of Student Services and chief financial officer. Notification will be mailed to the address provided upon completion of processing.

Students must complete the Request for Tuition Refund or Tuition Credit in the Records Office as they drop the class(es).

Guidelines

- 1. Students passing proficiency examinations for courses they have registered and paid for are not eligible for a Tuition Refund/Tuition Credit.
- Refunds of five dollars or less will not be made except for classes cancelled by FTCC.
- 3. Students failing courses in which they request a tuition credit are subject to denial
- 4. Tuition credit must be applied toward tuition costs during any one of the following four quarters. If the student fails to use the credit in the specified time period, these funds are forfeited.
- 5. Fees other than tuition can not be refunded.
- 6. Tuition credits are not transferable to other individuals.
- 7. Tuition credit requests must be submitted by the 28th day of the quarter in which the classes were dropped. Late requests are not allowed.
- 8. Tuition Refunds/Tuition Credits for Adult Continuing Education classes are handled by West Campus. Apply in the offices on West Campus.

STUDENT FINANCIAL RESPONSIBILITY

The Business Office recommends the use of cash, certified checks, cashier's checks, Mastercard or Visa credit cards for payment of tuition, fees, and charges. Personal checks will be accepted only with a numbered ID that has a picture of the student (usually a valid driver's license). Third-party, out-of-country, out-of-state, and business checks will not be accepted.

Personal checks may be written to pay for tuition and fees. However, if the check is returned for any reason, there will be a service charge of \$20.00 for each check written. Any student who does not have money for tuition and fees or does not have on file in the Business Office a written authorization from a sponsoring agency will not be allowed to register.

ACADEMICS

ORIENTATION AND REGISTRATION FOR NEW STUDENTS

All new students are required to participate in an orientation and registration session conducted by the counseling staff and faculty. The purpose of this session is to register the students and to acquaint them with personnel, faculty, and student organizations. The regulations, policies, and privileges of Forsyth Technical Community College as set forth in the General Catalog and Student Handbook are discussed and interpreted. Specifics are presented on departmental rules and schedules for individual curriculums that entering students are required to be familiar with while enrolled.

REGISTRATION FOR CURRENTLY ENROLLED STUDENTS

Students must register and pay fees by the beginning of each quarter. The registration and prepayment dates for currently enrolled students are posted during the latter part of each quarter. All currently enrolled students are required to meet with their advisor to determine a schedule of courses for the upcoming quarter. Any questions arising during this registration period concerning transfer credit for a course(s) should be directed to the appropriate admissions counselor. Tuition and fees must be paid on designated prepayment or registration days or students will have their registration voided.

DROP/ADD AND SCHEDULE ADJUSTMENT

A student may drop and add classes during the drop/add period. Schedule adjustment may be allowed if:

- 1. a class is not cancelled or closed;
- 2. students have the consent of their advisor and have met admission requirements and prerequisites.

COURSE NUMBERING SYSTEM

Courses are numbered in accordance with the system approved by the North Carolina Department of Community Colleges. Each course is designated by a three-letter prefix indicating the general subject area. A number indicating a specific course within an area follows the letter prefix according to the following rules:

1.	Pretechnical courses	0001-0099
2.	College Transfer and technical courses	0100-0299
3.	Vocational courses	1000-1099
4.	Continuing education courses beyond high school	2000-3099



GRADING SYSTEM

The following grading system is generally used by Forsyth Technical Community College:

Number Grade	Letter Equivalent	Description	Quality Points Per Grade Hour
94-100	A	Excellent	4 .
86-93	В	Good	3
78-85	С	Fair	2
70-77	D	Passing	1
Below 70	F	Failing	0
Withdrawal	W	The letter equivalent system a used for recording and reporting grades. W-Withdrawal - A withdrawal is the gragiven to a student who officially withdraw from a course through the 18th class day the quarter.	
Withdrawal Passing	WP		
Withdrawal Failing	WF		
Incomplete	I		
Audit	Y	passing is the grade g	Passing - A withdraw given to a student who 18th class day of

quarter withdraws from a course with a passing grade.

WF - Withdrawal Failing - A withdrawal failing is the grade given a student who at any time after the 18th class day of the quarter withdraws from a course with a failing grade. A WF is computed in the grade point average equivalent to a grade of F.

Withdrawals (WP, WF) - A student may not withdraw from a class after the 50th class day of the quarter without permission of the instructor.

I - Incomplete - The grade of Incomplete is given only if a student has a valid reason for failure to complete the work on schedule. Illness, absence on company business, or circumstances beyond the student's control are considered valid reasons for noncompletion of work. The student must have advised the instructor of the circumstance before the end of the quarter and have been granted an Incomplete grade. The instructor must have specified the work to be made up in order to remove the Incomplete grade and a date within the following quarter by which the work must be completed. If the conditions necessary to remove the Incomplete grade will require additional hours of instruction, the student must reregister for the course. If, on the other hand, the student needs only to complete work without instructional supervision, this work must be completed no later than the following quarter or the course must be repeated.

Any student who receives an Incomplete grade on a course that is a prerequisite for another course must make up the incomplete work by the end of the drop/add

period if the student is registered for the next succeeding course. Should the student fail to remove the Incomplete grade by the end of the drop/add period, the student must drop the course which is dependent on the prerequisite.

If the Incomplete grade is not removed by the end of the quarter immediately following the quarter it was granted, it will remain permanently recorded.

Y - Audit - Students auditing courses are not required to take examinations or hand in written work but may do so if they wish. No grade or credit toward a diploma is given. An audit may not be changed to credit, nor credit changed to audit after the last day of the drop/add period. Normal attendance policies will apply. Students withdrawing during the quarter will be given the grade of W.

The Audit Request form is available in the Counseling Center or from the appropriate division dean. It must be submitted to the Records Office for processing before the end of the drop/add period.

HOW TO WITHDRAW OFFICIALLY

Every student who is considering withdrawing from a class or from school should contact the instructor, Records Office or Counseling Center to discuss the decision to withdraw. When the student initiates a drop, the date the student completes the drop form is considered the official withdrawal date by the Records Office. When the instructor initiates a drop, the date the instructor records on the Drop Form is the official withdrawal date.

Withdrawal from a Class - It is the student's responsibility to notify the instructor, Records Office or Counseling Center in person of the decision to withdraw and to complete a Drop Form.

Total Withdrawal from School - A student who must withdraw from school before graduation, either permanently or temporarily, should withdraw officially. Students must notify their instructors, Records Office or the Counseling Center in person and complete a Drop Form and the End-Of-Quarter Withdrawal Notice. This information is necessary to ensure that the student's status at the time of withdrawal is clearly identified in order to expedite re-entry, transfer of credit to another institution, or to provide potential employers with accurate education information. Veterans and financial aid recipients must notify Student Financial Services. When students fail to notify the Records Office or Counseling Center, they may receive a failing grade from their instructor.

As stated in the attendance policy, no passing grade will be issued for a course(s) if, for whatever reason, a student has been absent 25% of the total officially scheduled class time. Under these circumstances, it is the responsibility of the instructor to initiate the Drop Form as soon as possible and submit it to the Records Office.

PREREQUISITES FOR CURRICULUM COURSES

Many curriculum courses have prerequisites to make sure that courses are taken in the proper sequence. If the occasion arises in which a prerequisite should be waived, both the appropriate department chairperson and dean must approve the waiver in writing. If a course affects more than one division, written approval may be necessary from more than one department chairperson and dean before the student registers for that course.

ACADEMIC STANDING/PROBATION

To be in good academic standing, a student must have earned a grade point average of 2.0 by the end of the first quarter, and a cumulative grade point average (GPA) of 2.0 must be maintained thereafter.

Students who do not earn the required GPA in any quarter will be placed on academic probation for the following quarter.

Students will automatically be removed from probation when they earn the required cumulative GPA.

Students on academic probation who do not earn the required GPA in the next quarter may be required to register for a reduced load, or they may be required to withdraw from the curriculum. The student may be directed to a more suitable curriculum.

Students in some curriculums may have special grade progression policies. These policies will be given to the student at the beginning of course study. Students who do not meet the requirements of these policies will be dropped from the curriculum.

All students enrolled in FTCC are expected to be aware of their academic status at all times and to be responsible for knowing they have failed to meet the requirements for continuing in school. Instructors, faculty advisors, and counselors are available for conferences, but it is the responsibility of the student to seek extra help if it is needed.

At the end of each quarter, each department Academic Review Committee meets to review students' academic standing. If a student's standing is changed in any way, other than removal from probation, the student will be notified in writing by the appropriate division dean.

APPEALS CONCERNING A GRADE (ACADEMIC APPEAL)

If you want to appeal a course grade, you must write the appropriate division dean within 24 hours after receiving your quarter grades. The dean will convene the division Academic Appeals Committee which will hear the appeal and make a recommendation to the dean. The dean will make the final decision and notify the student, the department chairperson, and the advisor in writing.

APPEAL OF ACADEMIC REVIEW COMMITTEE

When students wish to appeal the decision of the department Academic Review Committee, they must appeal in writing to the appropriate division dean within 24 hours of receiving notification.

The dean will convene the division Academic Appeals Committee which will hear the appeal and make a recommendation to the dean. The dean will make the final decision and notify the student, the department chairperson, and the advisor in writing.

COURSE REPEAT RULE

The last grade earned on a repeat course, whether F or higher, will be the grade computed for GPA. Withdrawal grades of W or WP will not be considered as repeat grades. A grade of WF will be considered as a repeat grade.

If students fail any course in their curriculum, they must repeat the course until a passing grade is received; otherwise, they cannot receive a diploma. Students are responsible for scheduling makeup courses required for graduation.

If students fail one of the courses in the major subject area, they may be referred to the Counseling Center for counseling.

GRADE REPORTS AND TRANSCRIPTS

Student grade reports are mailed to students' permanent addresses after the end of each quarter.

Transcripts of all course work attempted at FTCC are maintained in the Records Office. Requests for copies of a student's transcript should be made in writing to the Records Office. Transcripts will not be issued without the written authorization of the student. All transcripts will reflect the student's complete academic record. Partial or incomplete transcripts will not be issued. Official transcripts are issued to employers, educational institutions, etc. Transcripts issued to students are unofficial and indicate that they were issued to the student.

A \$2.00 fee is assessed for each copy of the transcript requested, whether official or unofficial. Transcripts are not issued unless tuition, fees, and other obligations due FTCC have been satisfied.

ADVISOR/ADVISEE

FTCC has an advisor/advisee program which is designed to provide a more personal atmosphere for the student and to increase communication between students and faculty. Each student is assigned a curriculum advisor. Through periodic conferences between the student and advisor, it is hoped that the student will be better able to choose an academic program from quarter to quarter and that potential problems will be avoided.

Each advisor will post regular office hours so that the student can arrange conferences to discuss or explore any problem or condition. The advisor will assist the student during registration. Students are not allowed to register without proper advising.

Each student is assured that all discussions are confidential. When necessary, the student may be referred to the Counseling Center.

CLASS ATTENDANCE

Students are expected to attend all class, laboratory, shop, practicum, and clinical experience sessions. Students have full responsibility for accounting to their instructors for any absence and should report to their instructors as soon as possible to determine if and when work may be made up.

Students are expected to report for class, laboratory, shop, practicum, and clinical experience on time. Habitual tardiness may, at the discretion of the instructor, be considered in computing attendance.

Students must satisfy the instructor that they should be permitted to remain in a course and attend classes after incurring absences in excess of the following:

- 1. three (3) hours of class;
- 2. two (2) practicum (shop, laboratory, or clinical experience) sessions which meet for two (2) or more hours;
- 3. two (2) hours of class and one (1) practicum (shop, laboratory, or clinical experience) session which meets for two (2) or more hours.

When students are absent from a class and a practicum (shop, laboratory, clinical experience) session which meet consecutively, each session missed will be counted as an absence.

Students will be informed in writing no later than the second class meeting when a course requires any special attendance rules different from those listed above. These special attendance rules must be on file in the office of the appropriate dean.

Class attendance is calculated from the first officially scheduled class meeting, which includes the drop/add period, through the last scheduled meeting.

No passing grade will be issued for a course if, for whatever reason, students have been absent 25 percent of the total possible class time per course per quarter.

CLINICAL EXPERIENCE IN HEALTH CURRICULUMS

- 1. Clinical hours in any of the health curriculums may be scheduled during any part of the 24-hour day, seven days a week.
- 2. Students will be informed in writing no later than the second class meeting when a clinical course requires any special attendance requirements.
- 3. In order to pass clinical courses, students must pass all critical requirements for the course.
- 4. Required uniforms must fit neatly in order for the student to meet the dress code of both FTCC and the clinical facilities.
- 5. There are certain areas (operation room, obstetrics, isolation rooms) in the hospitals that require special hospital garments. To control infection, hospital policy requires that only those garments supplied by the hospital be used. Students who are unable to wear and be covered by these garments will not be allowed to go into that clinical area and this may jeopardize their ability to complete the curriculum.
- 6. Failure to meet any dress requirements may jeopardize the student's ability to continue in a curriculum.

STUDENT CLASSIFICATION

Full time	A student who is enrolled in 12 or more credit hours of course work.
Part time	A student who is enrolled in fewer than 12 credit hours of course work.
Special Credit	A student who is enrolled in credit courses but who is not working toward a diploma.
Audit	A student who is enrolled in regular course work but who is not receiving credit for work undertaken.
Freshman	Any student who has earned fewer than 45 credit hours.
Sophomore	Any student who has earned 45 credit hours or more.

PRETECHNICAL PROGRAM

This program offers a series of courses for preparation, remediation, and academic guidance for students who, for a variety of reasons, do not meet the specific entrance requirements for a curriculum of their choice. Students whose academic records indicate that they may have difficulty in a curriculum of their choice may also be advised to take remedial course work in the Pretechnical program.



The student's academic study program is individually designed to meet that student's specific needs. The program provides students with an opportunity to build academic skills and acquire the background which should facilitate success in their desired curriculum. Students classified in Pretechnical are not eligible for any form of financial aid through FTCC.

SPECIAL CREDIT POLICY

A special credit student is one who is taking one or more curriculum credit courses, but who is not enrolled in a specific curriculum. Special credit students are permitted to register for some credit courses without having to be admitted as a regular curriculum student, provided that prerequisites have been met and that such registration does not preempt students enrolled in a degree, diploma, or certificate curriculum. Some credit courses will not be available to special credit students without prior instructional division approval.

For admission to FTCC, a special credit student needs to be a high school graduate and to complete the student application. All special credit students are required to take the Assessment and Placement Services Test and furnish an official transcript, unless these requirements are waived by the Admissions Office. Special credit students must submit an updated application and meet regular admission requirements to be approved or reclassified as a curriculum student. Satisfactory completion of courses as a special credit student does not guarantee admission to a curriculum.

When students reach 30 credit hours, they will be advised to seek admission into a curriculum, but there are no limitations on the number of credit hours earned by a special credit student. All credit hours will be evaluated for application to curriculum admission when and if the special credit student applies.

Generally, students are approved for special credit status in the following circumstances:

- 1. The student desires to take some relevant credit courses prior to being able to start a specific curriculum. The student may desire to complete these courses before entering that curriculum in order to reduce course load once in the program to improve chances for success.
- 2. The student desires to take specific courses, but does not plan to pursue and complete a curriculum at FTCC.
- 3. The student has been denied admission into a specific curriculum that has already reached its quota at the time of application but wishes to complete the related courses.

All policies, rules, and the Code of Conduct apply to special credit students. Special credit students are not eligible for any form of financial aid through FTCC.

Those students who are designated to be in the Pretechnical program based on placement test scores are not eligible to be considered as special credit students.

READMISSIONS

Students who have withdrawn in good academic standing should contact the Admissions Office to update their application. If the application for readmission is for a different curriculum, standard admission requirements for new students will apply.

Students who have withdrawn while on academic probation or who have been suspended for academic deficiencies must reapply through the Admissions Office. Approval for readmission to the same curriculum or a different curriculum will be based on the applicant's ability and aptitude, the time elapsed since withdrawing, recommendations of the Academic Review Committee, and the applicant's career objectives. Students granted readmission may have course load restrictions, specific grade requirements, and/or required counseling sessions in order to remain enrolled in the curriculum. When good academic standing has been reestablished, the restriction(s) will be removed.

There are specific additional guidelines for re-entry into any of the health curriculums. These guidelines may be obtained from the Admissions Office.

Former students who reapply for admission may be asked to supply the Admissions Office with transcripts and test scores.

Students who have been suspended for disciplinary reasons cannot be readmitted without submitting a request for approval from the dean of Student Services.

INDEPENDENT STUDY

Independent study provides an alternate means for a student to earn credit for certain required courses. It should be used only when it has been determined that it would create an unreasonable hardship for the student to wait for the course to be available. Guidelines to be used are as follows:

- To be considered for independent study, students must file a Request for Independent Study form with their advisor who will review the request and forward it with suggestions to the division dean for final action. The form should be completed during registration, and the student must register for the course during the registration period.
- 2. Acceptable reasons for allowing a student to take an independent study are (1) one-time course sequencing difficulties, (2) scheduling problems that were no fault of the student, and (3) needing the course for graduation at the end of the quarter.
- 3. Students will not be approved for independent study if their cumulative GPA is less than 2.0 or if they have failed or withdrawn failing from the course in question.
- 4. Students will not be allowed to take more than two courses as independent study during the entire time in a curriculum. Exceptions require special approval from the division dean.
- 5. All independent studies must be taught by a full-time instructor.

PROFICIENCY EXAMS

A student who has been approved for admission or a student already enrolled in a program of study may request to take a proficiency exam for a course for which a proficiency exam is available. It is not necessary for a student to be registered or enrolled in a course before requesting a proficiency exam. However, if the student is enrolled in a course for which a proficiency exam is requested, the request must be made by the tenth class day. A student who withdraws from a course after the tenth class day in any quarter and has not formally submitted a request cannot earn credit by proficiency exam for a

period of one year. The academic advisor will certify that the student has not been enrolled in the course within the past year and that the prerequisites for the course have been satisfied. Some curriculums have restricted proficiency exams and the student must be admitted to that curriculum before a request will be considered. A student may take a proficiency exam for a given course only once in a twelve-month period. A Request for Proficiency Exam form must be completed and a \$10.00 nonrefundable charge is assessed for each proficiency exam. Guidelines on how to apply for a proficiency exam can be obtained from the office of the appropriate division dean and the Counseling Center. Tuition and fees are nonrefundable.

TRANSFER STUDENTS

Applicants who have attended other institutions of higher learning may transfer credits in courses comparable in content, objective, quality, and credit hours to those offered at FTCC. Direct transfer of credits may be granted if the student is transferring from an institution that is regionally accredited or is a member of the North Carolina Community College System.

No grade lower than a C may be transferred from other institutions. Courses taken on a pass/fail basis will be considered only after receiving information on requirements necessary to receive a pass grade. All final transcripts for transfer credit for questionable courses will be made by the director of Admissions after consultation with appropriate department chairpersons. A written evaluation will be sent to the student.

Credits transfered from other schools will be reflected on students' transcripts as hours earned and will not be used in the computation of grade point averages. When a student transfers between curriculums within FTCC, credits attempted, including grades, hours earned, and quality points will be forwarded to any curriculum where the courses are identical. A student's initial cumulative grade point average in a new curriculum will be computed from the credits forwarded to that curriculum. For courses that are not identical but comparable, credit will be granted in the same manner as courses transfered from another institution. Such courses will not be used in computing grade point average; only hours earned will be transfered.

Many courses with a technical or skill content have time limitations on the acceptance of transfer credit. This includes credits earned at other institutions and/or credits earned at FTCC. Generally, courses in this classification taken more than five years before entry into FTCC cannot be considered for transfer purposes. A complete list of these courses and the specific time limitations are maintained by the Admissions Office. In such instances, students may challenge out-of-date courses by proficiency examinations when appropriate and available.

Inquiries concerning transfer credits granted must be made to the admissions counselor during the student's first quarter of enrollment. If the student is not satisfied with the transfer credit as granted, requests should be made in writing to the director of Admissions who will confer with the appropriate division dean. After deliberation between the division dean and the director of Admissions, the student will be notified of the final decision on transfer credit to be granted.

TRANSFER OF EARNED CREDIT BETWEEN FTCC CURRICULUMS

Credits earned in any FTCC two-year curriculum may be credited toward other two-year curriculums or a diploma curriculum upon evaluation and acceptance by the director of Admissions. Credits earned in a diploma curriculum are not acceptable for transfer to an associate degree curriculum but may be credited toward a second diploma major.

TRANSFER TO SENIOR COLLEGES AND UNIVERSITIES

The College Transfer program is designed to provide a quality educational experience equivalent to the first two years of a liberal arts college curriculum. Students who have earned the degree of A.A. (Associate in Arts) or A.S. (Associate in Science) can transfer to most public or private senior institutions with full junior-year standing. A minimum GPA of 2.0 is required for acceptable transfer credit.

The program enables the student to prepare for virtually any area of major interest. It covers six (6) quarters, and offers courses in mathematics, literature and grammar, humanities, physical education, and the social, physical, and life sciences. Counselors and advisors are available to assist students in planning acceptable programs for transfer to the desired college or university. The Career Guidance Center maintains copies of all College Transfer Agreements for student review.

Students who need to improve their academic skills or gain credit for courses not taken in high school can do so through Pretechnical noncredit courses.

Technical-level credit earned in the A.A.S. degree programs at FTCC may be transfered to similar programs at other institutions. Acceptability of all technical transfer credit is determined by the institution to which the student wishes to transfer. Diploma credit is not transferable to senior institutions.

The Career Guidance Center also maintains a list of senior colleges and universities which currently accept some or all of the credit earned in a technical-level (Associate in Applied Science) curriculum. However, it is the student's responsibility to contact the Admissions Office of the receiving institution for transfer information.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

The Family Educational Rights and Privacy Act of 1974 provides many safeguards regarding the confidentiality of and access to student records.

- 1. Students may review their educational records by making a written request to the director of Records and Recruitment.
- 2. Student records will not be reviewed by third parties unless permission is obtained in writing from the student. Exceptions may be made for instructors and administrators if the information is for educational purposes. Exceptions may also be made for parents who claim the students as dependents and for credentialing, auditing, or accrediting organizations. The dean of Student Services will make the final decision concerning access to records.
- 3. Official transcripts will be issued only when a written request is received from the student. Transcripts from high schools or other colleges will not be released.
- 4. FTCC does not publish or distribute directory information or any personally identifiable information.
- 5. FTCC publishes the names of graduates in the graduation program and in local news media. Names of students attaining quarterly academic honors are also published. Students who do not wish their names published must notify the Records Office in writing of their desire not to have their names published for graduation or academic honors.
- 6. Authorities with court orders are permitted to review records in the presence of Student Services administrative staff.

GRADUATION REQUIREMENTS

A student wishing to receive a degree, diploma, or certificate from FTCC must fulfill all course requirements. All students must have earned a cumulative grade point average of 2.0 and must have received a passing grade in all required courses to be eligible for graduation.

Grade point average (GPA) is obtained by dividing the total quality points earned by the total number of credit hours attempted.

A candidate for an associate degree must complete at least 32 quarter hours of credit work at FTCC, with a minimum of 16 quarter hours in the major area. A candidate for a diploma must complete at least 16 hours of credit work at FTCC, with a minimum of eight (8) quarter hours in the major area courses. Credit hours required in residency may not be met by proficiency examination.

Course requirements vary according to program. Students should refer to the course requirements for their program of study to determine if all requirements have been met and should be aware at all times of their progress toward graduation. Course substitution may be granted by the appropriate dean when deemed necessary for graduation.

Students graduate with the course requirements that are applicable at the time they enroll in a curriculum if they remain continuously enrolled until graduation. Students who withdraw for two or more quarters from a curriculum must graduate with the course requirements that are in effect at the time they re-enroll. Any exceptions must be approved by the appropriate division dean.

It is the responsibility of the student to complete the official Intent to Graduate form at least six weeks before the last registration. Intents filed within eight weeks of graduation will not be accepted for that graduation, but will be applicable for the next graduation. Intent to Graduate forms are available in the Records Office. There is a \$10.00 nonrefundable graduation fee that must be paid at the time the Intent is filed.

HONORS AND AWARDS

Any student who has earned a cumulative grade point average of 4.00 at FTCC will be granted a diploma or degree with High Honors. Any student who has earned a cumulative grade point average of 3.50 or above will be granted a diploma or degree with Honors. A seal of recognition will be placed on the student's degree or diploma, and the student's transcript will be noted to reflect this achievement. To be eligible for Honors or High Honors, at least 32 quarter hours must be completed at FTCC for those students enrolled in an associate degree program, and at least 16 quarter hours must be completed at FTCC for those students enrolled in a diploma program. Only graduates in curriculums leading to a degree or diploma qualify for this academic recognition. Graduates of the curriculums leading to a certificate of completion do not qualify.

QUARTERLY HONORS

President's List:

At the end of each quarter, a President's Honors List will be published to honor those students with a 4.00 GPA. To be eligible for the President's Honors List, students:

- a) must be approved and enrolled in a curriculum, excluding Pretechnical students, special credit students, and certificate students.
- b) must earn a 4.00 GPA on a minimum of 8 credit hours of curriculum courses. The formula used to calculate 4.00 excludes the following grades: W, WP, Y.
- c) must have completed all course work for the quarter. Students with grades of "I" will not be eligible.

Deans' List:

The Deans' List is published quarterly to honor those students with a quarterly grade point average of 3.50 to 3.99. To be eligible for the Deans' List, students:

- a) must be approved and enrolled in a curriculum, excluding Pretechnical students, special credit students, and certificate students.
- b) must earn a 3.50 GPA or above on a minimun of 8 credit hours. The formula used to calculate this minimun 3.50 GPA or above excludes the following grades: W, WP, Y.
- c) must complete all course work for the quarter. Students with grades of "I" will not be eligible.

COMMENCEMENT EXERCISES

Commencement exercises are held at the end of spring and summer quarters on the dates published in the academic calendar. Diplomas are awarded at this time. Students are expected to notify the Records Office as to their intention to participate in the exercises when they submit their Intent to Graduate form.

COMMENCEMENT MARSHALS

Marshals are selected from full-time rising sophomores who have maintained the highest scholastic averages during their freshman year. The two marshals who have the highest academic averages are named chief marshals.

SCHOOL RINGS AND PINS

Students in good standing who have completed at least one-half of the credit hours required for graduation in their curriculum may order a school ring. The student is required to pay a deposit at the time the ring is ordered with the balance due upon delivery.

Pins for health curriculums are also available. Orders for both pins and rings may be placed with the bookstore.

SEALED RECORDS

A student's records may be sealed from the student's review and closed for purposes of readmission and grade posting due to financial debt to the school or litigation involving the student and the school. Inquiries regarding sealed records should be directed to the dean of Student Services. Transcripts will not be issued as long as the file remains closed.

UNRESTRICTED ELECTIVES IN A.A.S. DEGREE PROGRAMS

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from a discipline outside the student's area of specialization.



STUDENT CODE OF CONDUCT AND RESPONSIBILITIES

CODE OF CONDUCT

The act of enrollment at Forsyth Technical Community College includes an acceptance by the student of the rules of FTCC. By enrolling, the student accepts the obligation to assist in making FTCC an effective place to conduct a learning process and to engage in the pursuit of truth, the development of self, and the improvement of society. Each enrolled student is considered to be a responsible adult, and FTCC assumes and requires that men and women who enroll in the various programs will maintain standards of conduct appropriate to the status of students at FTCC.

FTCC has an inherent responsibility to maintain order on its campus. Therefore, students may or shall be suspended or dismissed for behavior deemed incompatible with the mission, the regulation, or the responsibility of FTCC, or deemed to be in violation of any of the provisions of the Code of Conduct as set forth herein.

FTCC recognizes the right of an enrolled student to receive a full opportunity to learn and develop, unfettered by any and all obstacles not conducive to a sound, fundamental educational program. To this end, FTCC recognizes, declares, and vests certain rights in each student enrolled at FTCC.

STUDENT RIGHTS

A. Legal Rights

All the rights and privileges guaranteed to every citizen by the Constitution of the United States and by the State of North Carolina shall not be denied any student. Further, FTCC shall adhere to all of the statutes of the United States and State of North Carolina. FTCC has recognized the Student Government Association as the approved agency to voice students' opinions and speak on institutional policies concerning students' activities.

B. Rights of the Learner

The instructor in the classroom and in conference shall encourage free discussion, inquiry, and expression. Student performance will be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards.

C. Student Records

The Family Educational Rights and Privacy Act of 1974 provides safeguards regarding the confidentiality of and access to student records.

1. Students may review their educational records by making a written request to the director of Records and Recruitment.

- 2. Student records will not be reviewed by third parties unless permission is obtained in writing from the student. Exceptions may be made for instructors and administrators if the information is for educational purposes. Exceptions may also be made for parents who claim the students as dependents and for credentialing, auditing, or accrediting organizations. The dean of Student Services will make the final decision concerning access to records.
- 3. Official transcripts will be issued only when a written request is received from the student or upon written authorization by a student to be released to a designated entity. (See Family Education Rights and Privacy Act of 1974 on page 28 for additional information.) Transcripts from high schools or other colleges will not be released.

D. Freedom of Association

Students are free to organize and join an association organized or existing to promote the student's curriculum or career interest. Student organizations must be approved by the Student Government Association before organization on the campus in order to ensure FTCC's policies and procedures are adhered to and followed.

E. Due Process

Due process procedures are established to guarantee the right of hearing, a presentation of charges, evidence for charges, the right of confrontation by the questioning of witnesses, and the right to counsel by the accused student, if so requested by the student. Any student aggrieved by the violation of this Code of Conduct shall have the right of appeal to the Student Appeals Committee as hereinafter provided.

GENERAL CAMPUS RULES

The following is a general summary and classification of the major rules of student conduct, and any violation shall be considered a violation of this Code of Conduct. For purposes of FTCC rules and regulations, FTCC grounds are defined as any location owned, leased, rented, controlled, or otherwise occupied by FTCC or any division.

Rule 1. Disruption and Disorderly Conduct

A student shall not engage directly or aid and abet in disorderly conduct which is intended to provoke violent retaliation or cause a breach of peace or which disrupts, disturbs, or interferes with the normal routine activities or teaching of students, or which disrupts, disturbs, or interferes with the peace, order, or discipline on FTCC grounds.

Rule 2. Damage to or Destruction of FTCC Property

A student shall not intentionally, willfully or wantonly cause, or attempt to cause, substantial damage to be done to FTCC property, or shall not steal, or attempt to steal, FTCC property.

Rule 3. Damage to or Destruction of Private Property

A student shall not intentionally, willfully or wantonly cause, or attempt to cause, damage to private property of another, or shall not steal, or attempt to steal, private property of another when on FTCC grounds or while attending an FTCC activity, function, or event held off FTCC grounds.

Rule 4. Assault on or Verbal Abuse of FTCC Employee

A student shall not intentionally cause, or attempt to cause, physical injury,

verbal abuse, harassment, or communicate a threat to an FTCC agent, servant, or employee at any time while such student is enrolled at FTCC.

Rule 5. Assault or Verbal Abuse of Persons Other Than Employees

A student shall not intentionally cause, or attempt to cause or threaten to cause, physical injury, verbal abuse, harassment, or communicate a threat, or direct any profane language toward any other student or FTCC guest, visitor, or invitee at any time while such student is enrolled at FTCC, or while such student is on FTCC grounds or is attending an FTCC activity, function, or event held off FTCC grounds.

Rule 6. Weapons and Dangerous Instrumentalities -

NC General Statute 14-269.2

It is unlawful for anyone to possess any weapon, whether openly or concealed, while on private school or public school property unless it is used as part of a school activity or ceremony. In essence, the statute refers to any and all property owned, used, or operated by any Board of Education, school, college, or university for the administration of any public or private educational institution. In practice, then, this statute permits prosecution of anyone carrying any dangerous instrument in school, on school grounds, or at any school activity.

Rule 7. Narcotics, Alcoholic Beverages, and Controlled Substances

A student shall not knowingly or negligently own, possess, use, transport or be at any time under the influence of any narcotic drug, alcoholic beverage or any other controlled substance (as controlled substance is defined by the North Carolina General Statutes or 21 U.S.C. subsection 812) while on FTCC grounds or during the time when a student is participating in any FTCC activity, function, or event off FTCC grounds. Use of any drug authorized by medical prescription from a registered physician shall not be considered a violation of this rule. However, students shall be held strictly accountable for their behavior while under the influence of prescribed medicines.

Rule 8. Classroom and Campus Activities

A student shall comply with all directions of teachers, student teachers, substitute teachers, teacher's aides, FTCC administrators, or authorized personnel during any time when the student is under the authority of FTCC personnel. A student on campus shall promptly identify himself to an FTCC official or campus security officer at all times upon reasonable request. A student shall appear before FTCC officials or disciplinary bodies when so directed. Any failure by any student to promptly and cheerfully obey or to abide by these regulations in this Rule 8 shall constitute a violation of this Code of Conduct.

Rule 9. Cheating, Forgery, and Related Offenses

It shall be a violation of FTCC Code of Conduct for a student to commit any one of the following acts:

- Academic cheating, including, but not limited to, unauthorized copying of academic work of another, collaboration for use of notes or books on examinations without prior permission of the instructor, and any form of plagiarism as such term is commonly defined;
- 2. Furnishing of false information to any FTCC personnel; and

 Forgery, falsification, or fraudulent misuse of any documents, records, or identification cards.

Rule 10. State and Federal Laws

A student shall not violate any State or Federal laws while on FTCC campus or while attending an FTCC activity, function, or event off FTCC grounds.

Rule 11. Student Attire Code

Although FTCC students may dress informally, cleanliness and neatness of appearance must be maintained. Shirts and shoes are required at all times while the student is on campus or at all times while such student is attending an FTCC activity, function, or event off FTCC grounds. Special technical or vocational programs, such as the health programs, may require special attire for clinical or laboratory areas. A student shall not attend classes or laboratory work conducted in the clinical or laboratory areas if such student is in violation of the attire codes for such areas.

Rule 12. Involuntary Psychological or Psychiatric Withdrawal

It shall be grounds for dismissal if and when it shall be medically determined that a student poses a threat to the physical well-being of himself or others or if such student has a physical, mental or emotional condition of such a nature as to disturb or disrupt the normal and usual activities of other persons on campus. A student shall agree to have a psychiatric evaluation when it appears to the satisfaction of the President of FTCC, or his designee, that such examination is in the best interest of the student, or FTCC, or both.

VIOLATION OF THE CODE OF CONDUCT

The following are the degrees of disciplinary action which may be taken as a result of violation of the Student Code Conduct:

- A. **WARNING** A written notice to the student that continuation or repetition of specified conduct will be cause for further disciplinary action
- B. **DISCIPLINARY PROBATION** A written reprimand to the student for violation of a specified rule, which may include exclusion from participation in a class or specified activities for a specified time as set forth in the notice
- C. RESTITUTION Reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or compensate for damages
- D. **SUSPENSION** Exclusion from class or classes and other student privileges or activities as set forth in the notice of suspension
- E. **DISMISSAL ON EXPULSION** Termination of student status for a definite period of time. At the end of this period of expulsion, the student is eligible to apply through the dean of Student Services for consideration for readmission
- F. **OTHER** Other types of discipline as set forth in campus rules and regulations consistent with the incident involved.

The conviction of a student of a criminal offense involving personal misconduct of

a kind, which, if condemned by the college, would reflect dishonor or discredit on the college, shall be sufficient grounds for suspension or dismissal of such students.

ENFORCEMENT PROCEDURES

Student conduct on an FTCC campus or student conduct during an FTCC activity, function, or event held off FTCC grounds that violates Federal and/or State and FTCC regulations may be dealt with in the following manner:

- 1. The student may be turned over to the civil authority and subjected only to the penalties imposed by that authority; or
- 2. The student may be subjected to sanctions imposed both by the civil authorities and FTCC; or
- 3. The student may be subjected to sanctions imposed by FTCC notwithstanding the fact the civil sanctions may not be imposed.

DISCIPLINARY PROCEDURES

A. Instructional Areas

Any instructor may request a student to leave a class, laboratory, shop, or clinical area when, in the opinion of the instructor, the student's conduct or personal demeanor disrupts normal classroom activities. If the student refuses to leave the class, the instructor may call campus public safety for assistance. The instructor, identifying the student and the cause for dismissal from class, will immediately notify in writing the division dean and the dean of Student Services of actions taken.

The burden of requesting re-entry to class, laboratory, or clinical areas will be upon the student involved. Request for re-entry must be made to the instructor before the next class meeting. If the instructor decides that the student needs additional counseling before re-entry, the instructor may require that the student meet with the division dean or the counseling staff for further discussion. If the division dean or the counseling staff decides that the student should be dismissed from the class or from FTCC, the instructor will send a written report (approved by the division dean) to the executive vice president for Instructional Services and the dean of Student Services. The executive vice president will make the decision on dismissal when applicable and dismiss the student. The student will be given a copy of the report and a written notification of the decision. If a student wishes to appeal the decision, the appeal must be made by writing the Student Appeals Committee within twenty-four (24) hours after receiving the dismissal notice.

B. Noninstructional Areas

Any employee or student may file a written complaint for disciplinary action against any student enrolled at FTCC. The Public Safety Office may temporarily remove a student from campus when the student is jeopardizing the safety and security of faculty, staff, and/or the student body; a written complaint must then be filed. The complaint must be filed with the dean of Student Services, who will promptly investigate the complaint and make a decision regarding suspension, dismissal, or other disciplinary action. Both the complainant and the student involved will be notified in writing. If the student wishes to appeal the decision of the dean of Student Services, the appeal must be made by writing the Student Appeals Committee within twenty-four (24) hours after receiving the notice of the decision.

STUDENT APPEALS COMMITTEE

The Student Appeals Committee will hear the appeal of any student after the appeal process has been exhausted at the department and division levels for instructional areas or the dean of Student Services for noninstructional areas. The Student Appeals Committee will hear the appeal of any student regarding the following:

- 1. discipline;
- 2. dismissal, except for academic standing;
- 3. admissions:
- 4. residency;
- 5. discriminatory practices; including ADA
- 6. sexual harassment.

The appeal will be heard under the following conditions within two working days of receipt of the confirmed appeal:

- 1. The student must submit a written statement containing factual and valid reasons for the appeal to the dean of Student Services, who will forward the statement of appeal to the committee chairperson. The chairperson may return the appeal to the student to clarify, to add factual information, or to state reasons for the appeal; the chairperson may reject the appeal if policies and procedures have not been followed by the student.
- 2. The committee will confine itself to making a recommendation on the appeal question and not on the validity of existing policies of FTCC. The committee reserves the right to suggest to the president that a current policy be examined for continued value to FTCC.
- 3. The committee will submit its recommendation to the president who will make a final decision and who will notify the parties involved.
- 4. In matters concerning residency classification, the committee's recommendation will be sent to the dean of Student Services, who will notify the parties involved of the decision. The next step in the appeal process is to the State Residency Committee. Procedures on state appeal are available in the dean of Student Services' office.
- 5. Records of the proceedings of the Student Appeals Committee are available upon written request to the dean of Student Services.
- 6. The student must obtain special permission from the executive vice president for Instructional Services to attend classes pending resolution of the case on appeal.

POLICY ON COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT

Congress has enacted the Americans with Disabilities Act. The Board of Trustees of Forsyth Technical Community College intends to comply with the requirements of the Americans with Disabilities Act and provide access to education for persons with disabilities as part of the mission of the institution. The Board of Trustees is committed to compliance with the Americans with Disabilities Act as a priority of the institution. The Board of Trustees hereby directs the administration to prepare, publish, and distribute this policy to comply with the letter and spirit of the Americans with Disabilities Act and to

take prompt action to implement the requirements of the Americans with Disabilities Act. The college will take the following steps.

- 1. Appointment of at least one individual with sufficient powers, authority, and staffing to oversee compliance with the Americans with Disabilities Act (i.e. Paula Compton, Special Services/Testing coordinator);
- 2. Preparation of a comprehensive self-evaluation of all programs and activities of the institution, including employment;
- 3. Appointment of a Task Force to assist the ADA coordinator in his or her functions, in preparation of the self-evaluation, and implementation of a plan of compliance, to include the following individuals: executive vice president for Administrative Services, executive vice president for Instructional Services, dean of Student Services, administrative assistant for Personnel/Evening Programs, director of Auxiliary & Physical Plant Services, chief financial officer, director of Public Safety, Special Services/Testing coordinator;
- 4. Preparation of an institutional budget for the activities of the ADA Coordinator, the self-evaluation, and provision of reasonable accommodation or auxiliary aids and services;
- 5. Other steps deemed necessary by the administration to comply with the Americans with Disabilities Act, unless these pose an undue burden or would result in a fundamental alteration of programs of the institution;
- 6. Implement procedures for raising awareness of the requirements of the ADA at all levels of the institution, including senior administrators, faculty, supervisors, and staff.

Further, the administration shall solicit the involvement of the community and individuals with disabilities in conducting the self-evaluation and in setting priorities for compliance.

The administration shall report to the Board of Trustees no less frequently than every three months during 1993 on the progress being made towards compliance with the Americans with Disabilities Act.

INFECTIOUS DISEASE POLICY

FTCC is committed to ensuring, as far as possible, that each employee and student enjoys safe and healthful work and/or study conditions. To this end, the college offers the following information for students and employees.

This policy information presents the procedures to be used by FTCC to protect those students and employees who may be exposed to infectious diseases and bloodborne pathogens. Bloodborne pathogens include, but are not limited to, the Human Immunodeficiency Virus (HIV), which is the causative agent for Acquired Immune Deficiency Sydrome (AIDS), and Hepatitis B Virus (HBV). These procedures are based on written requirements published in the Federal Register (29 CRF 1919.1030).

Persons infected or reasonably believed to be infected with communicable diseases shall not be excluded from enrollment or employment, or restricted in their access to the institution's services or facilities unless medically-based judgments in individual cases establish that exclusion or restriction is necessary to the welfare of the individual or the welfare of other members of the institution.

Persons who know or have a reasonable basis for believing that they have an

infectious/communicable disease which may pose a threat to others have an obligation to conduct themselves in accordance with such knowledge, so as to protect themselves and others. Accordingly, employees should report this information to the administrative assistant for Personnel and Evening Programs, and students should report to the dean of Student Services. All information will be kept confidential except to those persons determined by the administrative assistant and the dean of Student Services as having a need to know. These persons will be informed after the individual is advised that such action will be taken.

It is the further declared policy of FTCC that its faculty, administration, and staff will conduct a continuing information program for all areas of FTCC personnel regarding communicable diseases and disabling illnesses.

DRUG-FREE STUDENT POLICY

Drug use and abuse by students have become immediate concerns in our society. These problems are extremely complex ones with no easy solutions.

The users of drugs may impair the well being of all students and the educational environment, and may damage FTCC property.

Therefore, it is the policy of FTCC that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited while on FTCC grounds.

- 1. FTCC does not differentiate between drug users and drug pushers, or sellers. Any student who gives or in any way transfers or aids and abets in the transfer of a controlled substance to another person or sells or manufactures or aids and abets in the sale or manufacture of a controlled substance while on FTCC premises will be subject to disciplinary action up to and including suspension from school.
- 2. The term "controlled substance" means any drug listed in the North Carolina General Statutes or 21 U.S.C. subsection 812 and other federal regulations. Generally, these are drugs which have a high potential for abuse. Such drugs include, but are not limited to, heroin, marijuana, cocaine, PCP, and "crack." They also include "legal drugs" which are not prescribed by a licensed physician.
- 3. The counseling staff will conduct quarterly mandatory drug awareness and education workshops for students. Individual counseling sessions and educational materials will be available in the Counseling Center at all times.
- 4. The counseling staff will include in orientation sessions reference to drug policies, drug awareness and sources for assistance.
- 5. The counseling staff will be available to lecture and assist instructional staff with class presentations to help educate students regarding alcohol and other drug use as well as the health risks of drug abuse.
- 6. The counseling staff will have available referrals for treatment and more extensive assistance.
- 7. Student Services will assess the institutional environment annually by reviewing data from Public Safety, the Counseling Center, instructors and other community resources to guide program development for students.

CRIME AWARENESS AND CAMPUS SECURITY ACT

Staff, faculty and students of FTCC are encouraged to report all criminal actions and other related emergencies to the Public Safety Office, which is located in the basement of Snyder Hall. A special emergency number has been established where staff, faculty, and students may dial ext. 325 from any campus telephone (excluding public pay telephones) and receive immediate assistance. The special 325 number is publicized by placing stickers on each campus telephone. Pay telephones provided throughout campus locations are available for students to dial 911 for immediate assistance.

Upon receipt of a complaint, a public safety officer is assigned to the case. The complaint is documented, investigated, and processed by the investigating officer. If necessary, or where appropriate, an outside agency such as the Winston-Salem Police Department is contacted for assistance. Other staff of the college, such as the dean of Student Services, may also become involved where appropriate.

All complaints are reviewed and, where appropriate, action taken by the director of Public Safety. Further review and action may occur up through the chain of command, including the President and Board of Trustees.

A Public Safety officer is on duty at all times regular classes are in session.

STUDENT ATTIRE

FTCC frequently has prospective employers and other visitors on campus. In addition, many companies seeking to relocate or open new industries will have representatives visiting this campus. Therefore, although FTCC students may dress informally, students are encouraged to dress neatly and cleanly. To ensure safety and to minimize disruptions to other students, shirts and shoes are required at all times.

Special technical or vocational programs may require special attire for clinical or laboratory settings. For example, there are certain areas in the health-related programs (operating room, obstetrics, isolation rooms) located in hospitals that require special hospital garments. A student will not be permitted to attend classes or laboratory work conducted in the clinical or laboratory areas if such student is in violation of the attire codes for such areas. Attire which would create a safety hazard will not be allowed.

COMPUTER SOFTWARE COPYRIGHT POLICY

Forsyth Technical Community College purchases licenses for use of a wide variety of copyrighted computer software. The college does not own the copyright on this software or its related documentation and, unless authorized by the software developer or publisher, does not have the right to reproduce it.

According to the United States Copyright Law, illegal reproduction of computer software can be subject to civil damages up to \$100,000 and criminal penalties including fines and imprisonment.

Forsyth Technical Community College does not condone the illegal duplication of computer software or the use of illegally duplicated software. College employees and students shall use computer software only in accordance with its licensing agreements. Any employee or student who makes, acquires, or uses unauthorized copies of computer software shall be subject to disciplinary action.

SERVICES FOR STUDENTS

ACCIDENT INSURANCE

Accident insurance covering the hours a student is in school, on field trips, or participating in student activities is provided to all full-time and part-time curriculum students. The student insurance is furnished by Forsyth Technical Community College as a service to students, but it is not meant to replace a student's personal coverage.

BOOKSTORE

The bookstore is operated by FTCC as a service to students, faculty, and staff. Textbooks, school supplies, and course-related materials, as well as other items of special interest to students, are offered for sale. The bookstore is adjacent to the student center in Snyder Hall and is open Monday through Friday from 8:30 a.m. until 3 p.m. and Monday, Tuesday, and Thursday from 6 p.m. until 8 p.m.

The bookstore strives to stock as many texts as possible at the beginning of each quarter, and students may sell some of their used books at the end of each quarter.

Full refunds are given during the first two weeks of each quarter in accordance with policies posted in the store. Books must be unmarked and accompanied by the original sales receipt.

Books for continuing education courses are sold at the West Campus bookstore during specified hours at the start of each quarter.

Summer quarter evening hours will be posted at the bookstore.

COUNSELING CENTER

The Counseling Center maintains a staff of professional counselors whose services are available to students needing help with educational, vocational, financial, social, or personal problems from the time they enter school until they leave. Assistance is provided to facilitate wise choices, decisions, and adjustments associated with being a student. The counselors also serve as consultants to faculty and staff in helping to meet the educational needs of students. The counselors are available to both day and evening students in the Counseling Center, located in the Allman Center.

Several individualized tests and inventories are available for counseling purposes, and students are referred to appropriate community agencies or resource persons when it is apparent that they can be assisted more effectively in this manner.

Instructors may refer a student who is experiencing difficulties directly to the Counseling Center, or the instructor may request that the counselor contact the student for an appointment.

The counseling staff adheres to a policy of confidentiality for information disclosed in personal counseling sessions. However, exceptions may be made when students represent a danger to themselves or others, or if students disclose that they are involved in an illegal activity. Counselors generally do not have protection from disclosure in court.

The counseling staff adheres to the Ethical Standards of the American Association for Counseling and Development.



CAREER GUIDANCE CENTER

Professional counselors provide career exploration and planning assistance to individuals through the Career Guidance Center. Participation involves a group intake session which allows the counselor to evaluate the needs of the participant. A variety of available inventories helps the counselor and participant explore interest areas. Follow-up appointments provide personalized information.

Sources of occupational information are also available to assist in the exploration of career options. College information and catalogues can help in locating information on majors and schools.

Contact the Career Guidance for more information.

FOOD SERVICE

Complete food service is located in the lower level of Hauser Hall. Canteen service is available in Snyder Hall, Hauser Hall, the student lounge at the Allied Health Building, and in the lunchroom at West Campus.

SPECIAL PROVISIONS FOR PERSONS WITH DISABILITIES

It is the intent of FTCC that all courses of study be accessible to qualified students. Persons with disabilities should provide approximately one quarter's advance notice to the dean of Student Services in order to identify any special equipment needs and to facilitate adjustments in curriculums, facilities, or schedules, if needed.

Special services currently available for persons with disabilities include, but are not limited to, tutors, readers, and notetakers, a TT (text telephone), staff members with basic manual language skills, taped texts, adapted computer equipment, and modification of placement test administration. These free services may be arranged in the Individualized Learning Center and in the Counseling Center. Arrangements must be made through the Special Services/Testing/ADA coordinator. The coordinator can assist with any special provisions to assist in the learning process. Students who require attendant care are responsible for their own arrangements.

HEALTH SERVICES

Limited health services are provided through the Public Safety Department. First-aid supplies are located in shop areas; however, injuries requiring more than minor first-aid will be treated in the emergency room of either Forsyth Memorial Hospital or North Carolina Baptist Hospital.

HOUSING

Since FTCC has no dormitory facilities, students who wish to live away from home must make their own housing arrangements. FTCC takes no responsibility for locating or supervising student housing; however, suggestions as to location of off-campus housing may be obtained in the Counseling Center.

INDIVIDUALIZED LEARNING CENTER

Most students have taken courses in the traditional classroom where an instructor stands in front of the class and everyone does the same activity at the same time. In the Individualized Learning Center, students work under the direction of an instructor but cover the subject matter at their own pace using self-instructional texts and audio-visual materials. This way students can work faster and finish a course earlier than they would in a classroom, or they can move more slowly, taking more time on especially troublesome

units. When students need help, they receive extended individualized attention from the ILC instructors.

For some students, the Learning Center's individualized approach provides a more comfortable learning environment because there is less pressure and no competition. Another attractive feature of studying in the ILC is the flexibility offered in scheduling courses. The ILC is open from 8 a.m. until 9 p.m. Monday through Thursday and from 8 a.m. until 1 p.m. on Friday. Students can schedule their own hours during these times, enabling them to work around outside commitments such as job hours and family demands. The Learning Center also offers an alternative if a class is full or is canceled for lack of students. Perhaps the greatest advantage of ILC study is the sense of satisfaction and self-confidence that develops from working successfully in an individualized setting.

In addition to the ILC on the main campus, there is also a center in the Whitaker Rehabilitation Unit at Forsyth Memorial Hospital. This center serves only Whitaker patients.

The following courses are offered in the ILC:

Medical Terminology I Basic Reading Skills and Vocabulary II

Medical Terminology II Basic Reading Skills III
Business Mathematics Basic Arithmetic Skills

Structure of Arithmetic Algebra

Prebusiness Mathematics Introductory Algebra
Filing Intermediate Algebra

Grammar Skills Fundamental Concepts of Algebra
Geometry Fundamentals of Mathematics

Assessment and Placement Services Test (APS) Preparation

Another service offered in the Individualized Learning Center is preparation for the APS, which is the placement exam required of most entering students. The ILC conducts quarterly study sessions on each of the test areas covered on the exam. The instructors give tips on how to take the test, administer practice tests, and explain the answers to the practice tests. This service is especially helpful to people who are returning to school after a long absence. Contact the ILC for dates and times of these sessions.

Tutoring Services

The tutoring services program provides assistance to students who are experiencing academic difficulties. The main function of these services is to arrange one-to-one and group tutoring sessions. Tutors are recruited primarily from the student body. In those subjects where the demand for tutors cannot be met on campus, other qualified persons are considered for tutor positions. FTCC provides tutor salaries without cost to the students who request assistance.

Skills Lab

The skills lab offers individualized programs to students who need help in a particular class. ILC instructors will work on an appointment basis with these students. Areas covered include general mathematics, algebra, English grammar and composition, reading, and any of the courses taught both in the classroom and in the ILC. Students must be referred by an instructor.

LIBRARIES

The two libraries contain approximately 32,000 books and audio-visual software. Accompanying audio-visual hardware is available for use in the libraries and classrooms.

Main Campus Library

The library, located in Ardmore Hall, is open Monday through Thursday from 8 a.m. until 9 p.m. and on Friday from 8 a.m. until 4:30 p.m.

Although no fines are charged, students are responsible for replacing books that are lost or damaged. Until replacement is made, library privileges will be revoked; the student will not be permitted to register, and the student's records will be sealed.

Allied Health Library at North Carolina Baptist Hospital

The library at the Allied Health Building is located on the first floor. It is open Monday through Thursday from 8 a.m. until 8 p.m. and Friday from 8 a.m. until 5 p.m. This library serves all allied health curriculums.

LOST AND FOUND SERVICE

Lost and found articles will be handled by the Public Safety Office. On other campuses, the libraries in the Allied Health Building at the North Carolina Baptist Hospital and the Information Registration Center on West Campus will handle lost and found articles. All lost articles of value should be reported to the Public Safety Office.

EMPLOYMENT ASSISTANCE CENTER

The Employment Assistance Center offers services free of charge to area employers, current students, and graduates of FTCC. Each year the EAC receives over 1,000 job listings from area employers. Students and graduates who register with the EAC may have access to these listings.

In addition, a representative from the Employment Security Commission of NC (ESC) is available in the EAC to work exclusively with FTCC students and graduates. Students who register with the on-campus ESC representative will have access to local, state, regional, and national job opening information.

The Employment Assistance Center also provides the following services to current students and graduates: individual career counseling, help in writing resumes and cover letters, interview preparation, and handouts and resource materials on marketability skills and job market information.

STUDENT CENTERS

A large, attractive student center is located on the ground level of Snyder Hall. Students are encouraged to use the center as a place to meet, talk, eat, and relax.

A student lounge is available to students in the health curriculums in the Allied Health Building at the North Carolina Baptist Hospital.

A student lounge and cafeteria are available in Hauser Hall on the ground floor.

GUIDELINES FOR TELEPHONE CALLS TO STUDENTS

Students cannot receive telephone calls or messages at school except for an emergency. FTCC does not have the facilities to forward general messages to students. Relatives, friends, and associates should be asked not to contact students at school. In case of an emergency, however, the staff will make every effort to relay information to students. Those calling in an emergency will be asked to state the nature of the emergency, give a name, and a return telephone number. It is the policy of FTCC not to give out identifying information about students to telephone callers and/or unidentified persons without the permission of the student. Emergency calls should be directed to the operator, the Counseling Center, Public Safety, or the appropriate dean's office.

USE OF FACILITIES

The buildings and their contents exist solely for the education of FTCC's adult population. The use of the facilities for any other purpose is strictly prohibited. Any use of these facilities for personal gain will result in immediate disciplinary action.

Smoking is prohibited in all classrooms, laboratories, shops, and auditoriums,

Animals are prohibited inside the buildings. Any animal on the campus grounds must be on a leash in compliance with the City of Winston-Salem Leash Law Ordinance Section 3-18.

Children are not allowed in classrooms or shop areas during class sessions, nor may they be left unattended in the library, canteen areas, or on campus grounds.

JTPA PARTICIPANT SERVICE CENTER

FTCC has received funding to develop a JTPA (Job Training Partnership Act) Participant Service Center. It is designed to improve the employability of participants by assisting them in overcoming barriers to employment due to educational and skill-training deficiencies. The center serves as a counseling site for JTPA-eligible participants enrolled in an approved curriculum. Emphasis is placed upon the importance of job survival skills, positive work attitudes, job development and placement at program completion. Interested persons may contact the JTPA coordinator.

WINS PROGRAM

Only a few years ago, career opportunities for women were restricted to a few "traditional" professions. Today's choices and opportunities are almost unlimited. Businesses, industries, and government agencies are actively seeking today's woman who has been prepared to enter the growing field of nontraditional settings.

The WINS (Women in Nontraditional Settings) Program is a project that is uniquely designed to help prepare women for the changing world of the future. Career opportunities ranging from Architectural Technology to Automotive Mechanics, and Computer Engineering Technology to Carpentry and Cabinetmaking are available to those women who can meet today's challenges for higher salaries, more competitive opportunities, and job promotions.

WINS seeks to help break the cycle of women's low-pay, low-status employment. Women selected to participate in WINS are eligible for financial assistance to supplement the cost of books, child care, and transportation expenses. WINS also provides counseling services, academic advising, career information, testing, tutoring, and other supportive services to assist women to better cope in nontraditional settings.

To find out how WINS can help women enter and compete in the world of changing opportunities for today's woman, contact the WINS coordinator.

SINGLE PARENT/DISPLACED HOMEMAKER PROGRAM

The Single Parent/Displaced Homemaker Program at FTCC provides child care assistance and/or other direct support (tuition, books, transportation, etc.) for full- or part-time students who are single parents, single pregnant women, or displaced homemakers enrolled in technical or vocational curriculums. The program is intended to give eligible students the flexibility to plan and complete a training program in order to become economically self-sufficient. To learn more about the program, you may contact the Single Parent/Displaced Homemaker coordinator.

STUDENT CLUBS AND ORGANIZATIONS

STUDENT GOVERNMENT ASSOCIATION (SGA)

The Student Government Association serves to promote interest in student affairs both on and off campus. The association is composed of all students who pay the student activity fee. Three representatives are selected from each of the instructional divisions to serve on the Executive Council. Representatives to the Executive Council elect the Student Government Association officers from within the Executive Council. The student activities facilitator serves in an advisory capacity to the Student Government Association. The Student Government Association and Student Activities Office is located in the Carolina Annex.

STUDENT REPRESENTATION ON BOARD AND COMMITTEES

The president of the Student Government Association is a nonvoting member of the Board of Trustees of FTCC. Student representatives also serve on the Student Appeals Committee, the Graduation Committee, and other committees concerned with students.

STUDENT ACTIVITIES

FTCC strives to offer its students more than an academic education. Efforts are made to provide students with extracurricular opportunities for involvement that will help to educate the total individual. By providing extracurricular activities, FTCC recognizes that a college education includes social, professional, and cultural involvement as well as academics. Students are invited to come by the Student Activities Office in the Carolina Annex and find out more about what FTCC has to offer outside the classroom.

STUDENT CLUBS, ORGANIZATIONS, AND ACTIVITIES Architectural Technology Club

The Architectural Technology Club serves to promote architectural education, to recognize outstanding academic achievement, and to provide related services to FTCC and the community. All students enrolled in the Architectural Technology curriculum are invited and encouraged to join.

Data Processing Management Association (DPMA)

The Data Processing Management Association (DPMA) student chapter provides Business Computer Programming students with opportunities in the data processing field. Members of DPMA have opportunities to learn more about data processing through regularly scheduled meetings of the students, attendance at the local chapter meetings, and field trips to local computer facilities.

Epsilon Delta Gamma

Membership in Epsilon Delta Gamma is open to any student who is, or has been, enrolled in a course of study in the administration of criminal justice. The objectives of the organization are to promote public understanding of the problems and objectives in the administration of criminal justice and to evaluate the standards of, and foster greater understanding between, the agencies and departments in all areas of the administration of criminal justice.

Phi Theta Kappa Honor Society

Membership in Phi Theta Kappa is open to students enrolled in an associate degree program who have completed 12 or more credit hours with a cumulative grade point average of 3.5 or above. This national organization has approximately 700 affiliate chapters and is sanctioned by the American Association of Community and Junior Colleges.

Society of Respiratory Care Students (SRCS)

The purpose of the SRCS is to increase community awareness of respiratory care, promote student fellowship, improve academic achievement, and generally enhance the educational experience of respiratory students.

Student Chapter of the Society of Manufacturing Engineers (SME)

The Student Chapter of the Society of Manufacturing Engineers is a service and social club open to students from the Manufacturing Engineering Technology and Drafting and Design Engineering Technology curriculums. The club is open to second-quarter students in these two fields of technology. SME has raised and set aside funds for endowing a scholarship.

Student Practical Nurse Organization (SPNO)

The Student Practical Nurse Organization originated in 1983, and its membership is composed of students in this curriculum. Its purpose is to provide opportunities for students to benefit FTCC, the practical nursing curriculum, and nursing in the community.

OTHER ORGANIZATIONS

Students are encouraged to affiliate with student chapters of various professional and technical organizations and societies.

ATHLETICS

Student athletic programs are offered through the Student Activities Office. Sports are offered based on student interest and the availability of faculty or student coaches. FTCC typically offers men's basketball, co-ed volleyball, men's and women's softball, and golf. Teams compete against other community colleges and in the Winston-Salem city leagues. All student activities in the West Campus gym must be supervised by FTCC personnel.

SPORTS PHILOSOPHY AND PURPOSE

The sports program is intended to provide students with a greater sense of effective community membership through competition with others. A sports program should serve as a laboratory of citizenship by inviting experimentation and learning in leadership, teamwork, strategy, and fair play.

STUDENT PUBLICATIONS

TECHNICALLY SPEAKING is the student newsletter written and managed by a student staff. The newsletter, printed monthly and distributed on campus, provides registration information, a calendar of events, and brief articles about students and staff.

Published annually at the end of the spring quarter, FTCC TECHTALK is a compilation of writing, original art, and photography from students and faculty/staff. Anyone affiliated with FTCC is encouraged to submit material for consideration.

STUDENT FINANCIAL SERVICES

Financial aid provides financial assistance to students who would otherwise be unable to continue their education. The financial need of a student is determined by the resources available to the student in relation to educational expenses.

Students applying for financial aid should complete and mail the Free Application for Federal Student Aid (FAFSA) to the appropriate address. This form should be completed no later than May 1 preceding the academic year for which aid is requested. As financial aid awards are made for only one academic year, students must reapply each year. Requests after May 1 will be processed as long as funds are available.

To be eligible for financial assistance, a student must be enrolled or accepted for enrollment and demonstrate a need for financial aid. Financial assistance is available in a variety of forms to help students who are eligible. Scholarships, loans, grants, and workstudy may be used singly or in combination to meet a student's total need. Pretechnical or Special Credit students are not eligible for financial aid.

Financial aid brochures containing more detailed information are available in the Student Financial Services Office. Also, the office provides monthly financial aid information sessions to those wishing to receive advice on how to complete the financial aid application. Please contact the office for an appointment.

SATISFACTORY ACADEMIC PROGRESS STANDARDS TO MAINTAIN FINANCIAL AID ELIGIBILITY

I. Introduction

Federal and state regulations require that students receiving financial aid maintain satisfactory academic progress. FTCC makes these standards applicable to all federal, state and institutionally awarded financial aid funds in order to maintain a consistent policy for all students receiving assistance.

II. Procedures

For financial aid purposes, satisfactory progress is measured two ways, quarterly and yearly. The procedures for both measurements are as follows:

A. Quarterly Evaluation

Students receiving financial assistance at FTCC must maintain satisfactory progress in their course of study as set forth by FTCC. To be in good academic standing, a beginning student must have earned a grade point average of 2.0 by the end of the first quarter, and a cumulative grade point average (GPA) of 2.0 must be maintained thereafter. A student failing to attain the required grade point average in any quarter will be placed on financial aid probation. A student in this category may receive financial aid for the upcoming quarter, but must complete that quarter with a cumulative grade point average of 2.0 or must have completed a full-time course load (12 quarter hours) during the probation quarter with a 2.0 quarterly average.

If students placed on financial aid probation do not earn the required grade point average, they are considered to be making unsatisfactory progress and are placed on financial aid suspension. Financial aid suspension means the termination of all aid.

Financial aid may be reinstated when a student's work has improved so that the student meets the required 2.0 cumulative grade point average. The student will then automatically be removed from suspension.

B. Yearly Evaluation

Satisfactory progress will be measured once a year in order to determine that students have completed the required amount of credit work towards their degree. Any quarter for which a student registers will be counted toward progression requirements regardless of the student's academic or financial status. Below are the progress requirements:

Length of Curriculum	End of:	Minimum Number of Credit Hours Required
Associate Degree Curriculums	4 quarters	12
	8 quarters	36
	12 quarters	72
	16 quarters	103-146
Vocational Diploma Curriculums	4 quarters	20
	8 quarters	65-82

Students who have not satisfactorily completed the required number of credit hours at the end of each year will have their financial assistance terminated.

Please note the following items that can affect the satisfactory progress requirements:

- 1. Remedial Coursework All students who are required to complete certain remedial courses while enrolled in an eligible program will be allowed one year or a maximum of 45 attempted equivalent credit hours before the yearly evaluation and time limitation requirements are enforced.
- 2. Incomplete Grades Students who receive an incomplete grade must remove it by the end of the next quarter. Incompletes that are not removed do not count towards graduation and could prevent a student from meeting the minimum credit requirements.
- 3. Withdrawals Students who withdraw or drop below half-time status for two consecutive quarters forfeit their financial assistance for the following quarter of enrollment. Withdrawals from school after officially registering for courses will count as total quarters attempted for yearly progress evaluation.
- 4. Repetition of Courses When students receive unacceptable grades, they are allowed to repeat courses as required by their advisor. In fact, it is recommended that students immediately repeat failing grades in order to improve their grade point average. Students should be aware, however, that while repeating courses count toward graduation requirements, they could cause a student not to meet the yearly satisfactory progression requirements.
- 5. Changing Curriculum Students who are placed on financial suspension and change curriculums will be allowed financial aid for the first quarter of the new curriculum. However, they must have a 2.0 cumulative grade point average at the end of the first quarter in the new curriculum or be placed on financial suspension. A second change of curriculum will not be funded until satisfactory progress is maintained.

NOTE: Maintaining satisfactory progress for financial aid is not the same as remaining in good standing in a curriculum. Each curriculum has its own requirements. As a result, even though students may still meet satisfactory requirements for financial aid, they may not be permitted to continue enrollment in their curriculum because of failure to maintain standards established in that curriculum.

III. Appeals Procedure for Financial Aid Termination

In order to appeal financial aid termination, a student must be able to document mitigating circumstances. The procedure for appeal is as follows:

- 1. Students must indicate in writing to the director of Student Financial Services the reason why they did not meet the yearly satisfactory progress requirement and why financial aid should not be terminated. Documentation from the student's advisor or dean to support the appeal is required.
- 2. The director of Student Financial Services will review the appeal to determine whether or not termination of aid is justified and the student will be advised in writing.
- 3. A student who wishes to appeal the decision of the director of Student Financial Services may request a committee hearing. The director of Student Financial Services will arrange an appointment for the student with the Financial Aid Advisory Committee for final determination.

IV. Time Limitation

A student will be eligible to receive financial aid for a maximum of 16 quarters. At the end of 16 quarters all financial aid will be discontinued.

GRANTS

FEDERAL PELL GRANTS

The Federal Pell Grant program is a federal aid program designed to provide financial assistance to those who need it to attend post-high school educational institutions. Students may apply by completing the Free Application for Federal Student Aid. Applications may be obtained at the Student Financial Services Office. Students should allow at least six weeks for processing.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT

The Federal Supplemental Educational Opportunity Grant (FSEOG) is funded by the federal government and is awarded to the neediest students who are Federal Pell Grant eligible and demonstrate a low family contribution.

FEDERAL WORKSTUDY PROGRAM

The Federal Workstudy program is a federally supported program through which students, primarily from low income families, are given preference for part-time employment (generally up to 20 hours per week). Students must be enrolled at least half-time to apply for workstudy and maintain satisfactory academic progress.



LOANS

Student Financial Services maintains a file on sources of financial aid for students. Loans at a low rate of interest are available through the following agencies:

The Federal Stafford Student Loan Program

North Carolina Student Loan Program - Health, Science, and Mathematics

Sloan S. Sherrill Nursing Loan Fund

Winston-Salem Foundation (Available to Forsyth County residents only)

NORTH CAROLINA NURSE EDUCATION SCHOLARSHIP/LOAN PROGRAM (NESLP)

This scholarship loan was designed to address the shortage of trainee nurses practicing in North Carolina. Loans are available for study in nurse education programs located in North Carolina that lead to a degree (ADN) or a diploma (PN). Funding is contingent upon appropriations by the General Assembly of North Carolina. All scholarship loans made under the NESLP are based on demonstrated financial need. Contact the director of Student Financial Services for more information.

NURSING SCHOLARS PROGRAM (NSP)

The Nursing Scholars Program is a competitive scholarship loan. Financial need is not a criterion. An eleven-member Nursing Scholars Commission was created by the General Assembly of North Carolina to develop the selection criteria, the method of selection, and to select recipients on a statewide basis.

Students interested in learning more about the Nursing Scholars Program can contact either the State Education Assistance Authority or contact the director of Student Financial Services between January 1 and April 20. The deadline for submitting applications to the State is usually May 1 of each year.

FEDERAL FAMILY EDUCATION LOAN PROGRAM (FFELP)

Students who wish to be provided with more information regarding the Federal Family Education Loan, Supplemental Loan, and/or the PLUS (Loans for Parents) programs are advised to contact Student Financial Services.

SLOAN S. SHERRILL NURSING LOAN FUND

The Sherrill Nursing Loan is an interest-free loan made through FTCC for second-year Associate Degree Nursing students. For more information and applications, students should contact Student Financial Services by May preceding the academic year for which a loan is requested.

SCHOLARSHIPS

Students are encouraged to contact Student Financial Services for additional information and application criteria for the scholarships listed below. Listed are only the scholarships programs which are renewed yearly.

The R. D. Boyer Scholarship Fund is awarded annually, based on financial need, to a student pursuing a career in construction occupations.

The Carolina Telephone and Telegraph Scholarship is awarded annually to two students. Priority is given to unemployed and/or minority students.

- The Corn Products Scholarship is awarded annually to students entering the second year of a business-related curriculum. The scholarship is for Forsyth County residents only and is based on academic ability and financial need.
- The Don Angell Nursing Scholarship is awarded annually to an ADN or PN student. Priority is given to an employee of Angell Care, Inc.
- The Mary Kate Dixon Horticultural Scholarship is awarded annually to an outstanding student entering the second year of the Horticulture Technology program.
- The Forsyth County Medical Auxiliary awards scholarships to students entering the Associate Degree Nursing and allied health curriculums. The awarding of these scholarships is not controlled by FTCC.
- The Norman Gaddis Scholarship is sponsored by the Student Government Association. It is primarily an emergency scholarship for students eligible for financial aid when funds are not available from other sources.
- The Sandra Johnson Memorial Scholarship is awarded annually to an outstanding student entering the second year of Administrative Office Technology.
- The 1990 Student Government Association/Tom Mayerchak Scholarship is awarded annually to a deserving student entering the second year of a technical or college transfer program. The program also awards three need-based scholarships, and provides funds for emergency use.
- The Marshall Paul Johnston Scholarship is a perpetual scholarship available to Automotive Mechanics students.
- The Winston-Salem Sertoma Club Scholarship is awarded to a Forsyth County resident and is based on need, academics, and good citizenship.
- The Winston-Salem Kiwanis and the Twin City Kiwanis Clubs award scholarships annually to graduating seniors. The scholarships are not controlled by the college.
- The Mary B. Lauerman Memorial Scholarship is awarded annually to a full-time student with the highest cumulative grade point average entering the second year of Associate Degree Nursing.
- The Randall R. Jones Scholarship is awarded quarterly to the Machinist student with the highest grade point average.
- The National Tooling and Machining Scholarship is awarded at the beginning of the third, fifth, and seventh quarters to the full-time evening machinist student with the highest grade point average at the beginning of each of the three quarters.
- The Modern Machine Scholarship is awarded annually to a deserving student in the Welding curriculum and is based on academics and need.
- The Jane Gaither Murray Scholarship is awarded annually to a deserving student entering the Associate Degree Nursing curriculum.
- The North Carolina Community College Scholarship is awarded annually with priority given to unemployed and/or minority students.
- The Lynne Breedlove O'Rourke Memorial Scholarship is awarded annually to an outstanding student entering the second year of the Radiologic Technology curriculum.
- The Mr. and Mrs. Henry F. Snyder, Sr. Scholarship is used primarily as an emergency scholarship for students eligible for financial aid when funds are not available from other sources.

- **The Southern Bell Telephone Scholarship** is awarded annually to two full-time students. Priority is given to applicants with the highest financial need and applicants whose job skills have become obsolete due to economic recession.
- The Wachovia Technical Scholarship is awarded annually to three students who are enrolled full-time in the second year of a technical curriculum and is based on need and scholastic promise.
- The Louise G. Wilson Scholarship is available to poverty-level Forsyth County residents who are accepted or enrolled in the vocational or technical curriculums.

PLEASE NOTE: In addition to the scholarships listed above, there are various individuals and organizations who contribute money yearly for scholarships to needy students. Most of the money available is not restricted; however, some of the scholarships are restricted to individuals enrolled in specific curriculums. Contact Student Financial Services for specific information regarding all federal, state, and local funds.

OTHER SOURCES OF AID

Other sources of aid not administered by FTCC are available for eligible students. Interested students should apply with the appropriate agency. Student Financial Services can assist the students in making the initial contact with the sources listed below:

North Carolina Veterans Affairs Scholarships

North Carolina Vocational Rehabilitation

North Carolina National Guard Tuition Assistance Plan

Job Training Partnership Act (JPTA)

Dependency and Indemnity Compensation (VA)

Winston-Salem Foundation

VETERANS' BENEFITS

FTCC is approved for the training of persons eligible for benefits administered by the Veterans Administration (VA).

The Admissions Office will help applicants select a program of study and explain the procedures for enrolling in FTCC. All admission requirements must be completed before veterans' paperwork can be started. Admissions will require application forms, testing, and the receipt and evaluation of transcripts for all prior training.

Once the admissions procedures are completed, the eligible person should contact Student Financial Services to begin benefits processing. The actual enrollment certification and related documents will not be submitted to the VA Regional Office until the new student registers for courses.

Veterans are responsible for being familiar with the information found in the Student Handbook, College Catalog, and all veterans brochures and information obtained in the Student Financial Services Office.

HOURS OF PAY

Veterans' benefit payments are issued monthly and are based on training for a prescribed number of hours.

Enrollees in two-year technical curriculums are classified according to the number of credit hours per quarter.

Full time12 or more	e credit hours
3/4 time	credit hours
1/2 time6-8	credit hours

Enrollees in one-year vocational curriculums are classified according to the number of weekly contact hours per quarter.

Full timea	minimum	of 22	contact hours
3/4 timea	minimum	of 16	contact hours
1/2 timea	minimum	of 11	contact hours

STANDARDS OF PROGRESS

Federal regulations require that students receiving veterans' benefits must maintain standards of academic progress and conduct.

SATISFACTORY ACADEMIC PROGRESS

The Academic Standing section of the Student Handbook describes the basic academic requirements for all students. A 2.0 cumulative grade point average must be maintained and a probationary period of not more than one quarter is permitted. Progress is reviewed on a quarterly basis and performance in the major subject areas and preparatory/refresher classes are considered as well.

If a veteran or eligible person is classified as making unsatisfactory progress, a report will be submitted to the Veterans Administration and benefits will be terminated. Termination will take place effective with the posting of grades at the end of the probationary quarter. Recertification will not be made until satisfactory progress has been established by the veteran's regaining a 2.0 cumulative grade point average. Students must request recertification to the director of Student Financial Services following the quarter in which satisfactory progress has been reached.

SATISFACTORY CONDUCT

Conduct in accordance with the section on Student Conduct and Responsibilities is expected of all students. Dismissal of veterans or eligible persons for unsatisfactory conduct will be reported to the Veterans Administration and benefits will be terminated.

SATISFACTORY ATTENDANCE

All students are expected to maintain satisfactory attendance as defined in the section on attendance. Eligible persons dropped from courses for nonattendance, poor attendance, or those who withdraw, will be terminated or have their hours reduced effective with the last day present in class. Unless special circumstances are involved, the Veterans Administration may determine this termination or reduction to be an overpayment retroactive to the beginning of the quarter.

PUNITIVE/NONPUNITIVE GRADES

Federal regulations prohibit payment for grades that do not count as progress toward graduation. Audits are not payable. A grade of WF is punitive because it counts as an F in grade point average computations. A grade of W or WP is nonpunitive. If an eligible person receives a grade which reduces his training time, a report is submitted to the Veterans Administration. In the case of punitive grades, the effective date of adjustment is the last day present in class. In the case of nonpunitive grades, the effective dates of adjustment will be an overpayment retroactive to the beginning of the quarter, unless special circumstances are involved.

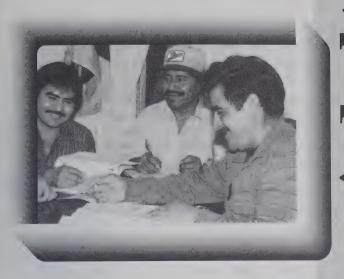












Education Education

The Continuing Education Division provides a balanced educational program that encompasses a wide variety of course offerings that will meet the educational needs of employed and anemployed adults.

ADULT CONTINUING EDUCATION

The Adult Continuing Education Division of Forsyth Technical Community College provides appropriate, economical, and convenient learning opportunities for those citizens who are 18 years old or older. The opportunities are based on individual need and previous educational achievement. They range from the first grade through high school

and extend into vocational, technical, and general adult continuing education. Training is available to all of suitable age who wish to learn and can benefit from the instruction provided.

The Continuing Education Division provides a balanced educational program that encompasses a wide variety of course offerings that will meet the educational needs of employed and unemployed adults. The specific areas include Adult Basic Education, Adult High School Diploma Program, Occupational Trade Courses, New and



Expanding Industry, Management Development, Academic, Avocational and Practical Skills, Compensatory Education, and English as a Second Language. New programs and/or courses are periodically developed when needs become apparent.

The primary goal of the Adult Continuing Education Division is to provide quality adult continuing education courses in convenient locations at a low cost for the citizens of Forsyth and Stokes counties.

The general program objectives are:

- 1. To provide expanded educational opportunities for those adults who would not otherwise continue their education.
- 2. To provide relatively inexpensive, nearby educational opportunities for high school graduates, school dropouts, and adults.
- To provide programs of vocational/technical education for employed and unemployed adults who need training or retraining.
- 4. To provide short courses that will meet the general adult and community service needs of the people in the community.
- 5. To provide requested vocational and technical training programs for new and expanding industry in the FTCC service area.

GENERAL INFORMATION

Adult Continuing Education courses are scheduled quarterly. Preregistration is required for all courses and programs. Preregistration can be accomplished by calling or coming by the Adult Continuing Education Office located on the West Campus at 1300 Bolton Street. Official registration takes place at the first class meeting. Registration is achieved by completing the necessary registration forms and paying the required fees. The Records Office keeps an official record of achievement for each student enrolled in Adult Continuing Education. Approximately 60 percent of the courses are taught on the FTCC main campus and on the West Campus. The remainder are taught in various locations in the community. Many courses meet during the day; however, approximately 70 percent of courses meet during the evening hours.

ADMISSIONS REQUIREMENTS

All persons who take Adult Continuing Education courses must be eighteen (18) years old or older. However, high school juniors and seniors may enroll provided they have advance approval from the school system. Everyone is required to preregister in order to take a continuing education course.

COST

A registration fee is required for all Adult Continuing Education courses except Literacy Programs: Adult Basic Education, English As A Second Language, GED, Adult High School, and Compensatory Education. Some courses have additional supply fee charges. Volunteer firemen, fire department personnel, volunteer rescue and lifesaving department personnel, local law enforcement officers, and persons sixty-five (65) or older are exempt from paying the registration fees.

CEU CREDITS

Most Adult Continuing Education courses that meet for ten or more contact hours are approved for Continuing Education Units. CEU credit is based upon the number of hours a course is scheduled to meet. One CEU is awarded for every ten hours, and any portion thereof, a person attends class. (For example, a course that meets for 22 hours awards 2.2 CEU's.)

OCCUPATIONAL EXTENSION PROGRAMS

The Occupational Extension programs and courses are designed to provide an opportunity for working adults to gain or to improve vocational/technical skills. The programs also serve the business and industrial community by upgrading the skills of employees.

The Occupational Extension Programs include:

- Management Development Training designed to train or upgrade supervisors, potential supervisors, small business owners, and management trainees in business and industry.
- Vocational/Technical Courses designed to upgrade skills and knowledge in certain occupational and technical trades. These courses also provide many adults with an opportunity to gain new skills.
- 3. **Fire Service Training** designed to provide practical training in all areas of fire fighting, to assist new volunteer fire departments in training personnel, and to provide upgrade training for the personnel of existing volunteer fire departments and local professional fire departments.
- 4. **Seminars and Workshops** designed to provide specialized training for particular groups.
- 5. **Law Enforcement Training** designed to train personnel in basic law enforcement and to provide upgrade training for persons who are currently employed in the profession.
- 6. **New and Expanding Industry Training** designed to train individuals in specific skill areas for jobs created by new or expanding industries.
- Health-Related Training designed to provide upgrade training to persons
 who are employed in health professions and prepare persons to become
 employed in health-related areas.
- 8. **Teacher Certificate Renewal Courses** designed to offer alternatives for NC

Certified Teachers to renew professional certification. All courses offered have prior approval from NC Department of Public Institution.

MANAGEMENT DEVELOPMENT TRAINING

Management Development Training (MDT) is an educational program designed to

upgrade the competency of supervisory and mid-management personnel in business and industry. Classes are scheduled in accordance with the needs of industry. Students will receive a certificate upon completion of each course.

There are no prerequisites for entry into this program. There are a variety of courses scheduled to meet one night per week for eleven (11) weeks.

Listed below are course descriptions for some of the more popular Management Development Training courses:

Human Relations on the Job-This course is designed to improve communication skills through an understanding of basic temperament qualities, preconditioned behavior patterns, and a discussion of principles developed through transactional analysis.



Students will be able to identify communication styles, ego states and learned behavior patterns and will be able to communicate effectively with each.

Principles of Management-This course involves the definition, function, history, purpose, and scope of management. Also covered in the class will be schools of thought in administration and management, the management process (planning, organizing, staffing, directing, controlling, coordinating, and decision making), tools of administration (authority and communication), and administrative responsibility.

Principles of Supervision-This course is designed for the person who is in a supervisory capacity. Subjects covered include fundamentals of supervision, relationships on the job, communications, training workers, performance evaluation, grievances and discipline, absenteeism, job management, managing time, encouraging self-improvement, human relations, and motivation.

Public Speaking-This course gives a basic understanding of the techniques needed to give a presentation and a chance to practice these techniques. Emphasis is on voice projection and getting ideas across. There is also discussion on ways to decrease fear of speaking before people, read the audience, and speak clearly, along with habits to avoid. All the techniques are discussed and each participant is given every opportunity to practice the new skills within the classroom setting.

Speed Reading-This course is designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition, and to train for comprehension in larger units.

Writing for Impact-This course allows students to participate in the composition and critique of key forms of written business communication in the areas of correspondence, reports and resumes. Included is a basic review of correct usage with an emphasis on typical problem areas. Students develop a thorough grounding in both the study and practice of the writing process.

 $See \, Adult \, Continuing \, Education \, General \, Course \, Listings, published \, each \, quarter, for \, courses.$

VOCATIONAL AND TECHNICAL COURSES

Courses in this program are occupationally oriented, providing adults with the opportunity to upgrade skills and knowledge in certain vocational and technical trades. This program includes upgrade training in such areas as electronics, health occupations, fire service training, and welding. It also gives the regular curriculum graduates of FTCC an opportunity to participate in a continuing education program after entering the world of work.

The following are course descriptions of some of the more popular vocational and technical extension courses:

- Air Conditioning and Heating-The air conditioning and heating program consists of several courses, each course 44 hours in length spread over one quarter each as follows: Air Conditioning Service I, Air Conditioning Service II, Refrigeration Service, Heating with Electricity, Gas and Oil, and Automotive Air Conditioning. The entire program may be completed in four quarters.
- **Auto Body Repair-**This program is divided into two quarters. The first quarter, Auto Body Repair I, is an introduction to automobile construction, body repair, handtools, molding fasteners, and minor sheet metal repair procedures (no prerequisites). In the second quarter, Auto Body Repair II builds knowledge and skills through hands-on priming and painting your car (Prerequisite: Auto Body Repair I).
- **Auto Tune Up-**This is a course designed for the car owner who would like to be able to perform a minor engine tune-up without having to invest a lot of money for testing equipment. This course covers basic fundamentals of engine operation with emphasis placed on items such as distributors, ignition, timing, carburetors, and many smaller items that assure a good engine tune-up.
- Cabinet Making-The Cabinet Making program consists of two courses: Power Tools and Production. In Power Tools students learn how to use woodworking power equipment safely with hands-on small projects. This is a 33-hour, one quarter course (no prerequisite). In the Production course (88 hours, one quarter) students actually build cabinets from their own drawings or drawings they may purchase. Prerequisite: Cabinet Making-Power Tools.
- Computers and Word Processing-Beginning with a 33-hour course in computer fundamentals, this program builds skills in operating a computer using software in BASIC programming, Data Base III Plus, DOS, LOTUS 123, Micro-Soft Works and Word Processing. Each software package is a 33-hour course with hands-on practice on an IBM computer or compatible (South Stokes H.S. classes use Apple computers).
- **Electronics-**This course defines basic units, volts, amperes, ohms, etc. It investigates mathematical relationships as applied to electrical units. Ohm's law is thoroughly covered. Electromagnetics and the operation of relays, motors, and generators (both AC and DC) are discussed. Students are introduced to electron theory and briefly how electron tubes and solid state devices operate. Students are shown how to use basic electrical/electronics measurement devices. No prerequisites.
- Machine Shop Practices- Basic machine shop practices which include the following: introduction to machine tools (drill press, lathe, milling machine, shaper, grinders, etc.), care and use of basic hand tools and measuring instruments, elementary layout and processes on lathe, drill press, and off-hand grinding of tools. This program is spread over three quarters. Safety glasses required.
- **Mechanical Drafting & Sketching I-**Instruction includes language of drawing, projections (orthographic, isometric, oblique), alphabet of lines, dimensioning and lettering, freehand sketching, and instrument drawing techniques.

- Oil and Gas Burner Service-This course covers the following: oil burner fundamentals (operation, control, and service of oil burner systems); installing and servicing electric heating elements and their controls; principles of operating, installing, and servicing hot water and low pressure systems. Safety glasses required.
- Small Engine Repair-In this one-quarter course (66 hours), the student completely disassembles a one-cylinder engine in need of repair. The student furnishes the engine. The student makes necessary repairs or purchases necessary new parts and then reassembles the engine. At the end of the course, the student has a working rebuilt engine.
- TV, Radio and VCR Repair-In this four quarter program students learn to service radios, TV's and VCR's. The program begins with a one-quarter course (88 hours) in electronic fundamentals. In the next three quarters, students learn service techniques through classroom and hands-on practice.
- **Upholstery-**In this course students learn the techniques of upholstery with hands-on practice. They learn to use heavy-duty sewing machines, staplers and glue guns while actually cutting, assembling fabric and fastening the fabric to furniture. Students must supply their own furniture in need of upholstering.
- Welding-The welding program consists of courses in gas welding (oxyacetylene), electric welding (ARC), gas metal arc (MIG), inert gas (TIG) and pipe welding. All courses are taught with hands-on practice.

See Adult Continuing Education General Course Listings, published each quarter, for courses.

FIRE SERVICE TRAINING

Fire Service Training is designed to provide practical training in areas of fire prevention and fire fighting. Courses are offered primarily to new volunteer fire department personnel. Upgrade training courses are provided for personnel who are already volunteers participating in fire departments and for professional fire fighters who are employed by the local professional fire departments. Fire Training Service courses are provided to professional and volunteer firemen free of charge.

Persons interested in further information regarding theses courses should call or come by the Adult Continuing Education Office, West Campus.

SEMINARS AND WORKSHOPS

Seminars and workshops are developed for the purpose of providing specialized training and educational programs for specific groups and organizations. Seminars and workshops have been conducted in the areas of hotel-motel management, energy conservation, cosmetology, occupational safety and health, and visual emission control.

LAW ENFORCEMENT TRAINING

Law enforcement education is primarily entrance-level training for public safety officers. In addition, this same training is offered to the Forsyth County Sheriff's Department. This 580-hour course was established by the North Carolina Justice Academy and includes 35 law enforcement topics. It is a mandatory minimum standard for basic police training in North Carolina. It is designed to provide the newly employed law enforcement officer with basic job knowledge, skills, and abilities to perform entry-level police work. The material includes constitutional law, the North Carolina Criminal and Motor Vehicle Law, traffic accident investigation and reporting, basic laws of arrest, search and seizure, evidence, patrol operation, firearms, and defensive tactics.

HEALTH-RELATED TRAINING PROGRAMS

Health-related training is designed to provide upgrade training to persons in the health professions and to assist persons in preparing themselves to become experienced in health-related areas. This training provides the student with entry-level job skills.

The courses are designed to upgrade as well as update knowledge and skills in specific areas. Courses are also offered to provide training for professionals who have not practiced in several years, enabling them to re-enter their profession with competence.

Listed below are course descriptions for some of the popular health-related training courses:

- **CPR-** This course teaches the proper and up-to-date techniques of cardiopulmonary resuscitation. It includes classroom and lab learning techniques. American Heart Association Certification is awarded to students upon satisfactory completion of this course. Prerequisite: None.
- CPR & Standard First Aid-The first four sessions of this class teach proper up-to-date techniques of cardiopulmonary resuscitation. The course includes classroom and lab learning techniques. Upon satisfactory completion of the CPR portion of the class, students are certified in CPR through the American Heart Association and may drop out if they choose. The last six sessions of the class are lecture/discussion on First Aid, with practical skill sessions. This portion is approved for teacher recertification credit. Prerequisite: None.
- **Emergency Medical Technician (EMT)-** This course prepares professional and volunteer EMT personnel to take the state examination for certification. It is jointly sponsored by FTCC and the North Carolina Office of Emergency Medical Services. It is approximately 140 hours in length, including both classroom and lab instruction.
- Licensed Practical Nurse (LPN) Refresher- This course prepares the LPN who has been out of nursing a number of years to go back to work with the necessary skills. There is a total of 90 classroom hours and 90 clinical training hours. The main areas of instruction include general medical and surgical nursing, experience with the functions of the LPN, and the LPN's relationship to the health team.
- **Medical Terminology-** Students taking this course acquire a working knowledge of terms encountered in medicine. The course also orients the student to the use of reference books dealing with medical terminology.
- **Nursing Assistant I-** This course prepares the graduate to provide personal care and perform basic nursing skills for the elderly and other adults. The course includes class, laboratory and clinical learning experiences. Upon satisfactory completion of the course the graduate is listed as a Nurse Aid I with the North Carolina Department of Human Resources Division of Facility Services.
- Nursing Assistant II-This course prepares graduates to perform more complex skills for patients or residents regardless of the setting. Emphasis is on infection control, elimination procedures, intravenous site care, established tracheostomy care, observation and maintenance of oxygen therapy and the role of Nursing Assistant II with members of the health care team.
- **Registered Nurse** (RN) Refresher- This course is designed to prepare the RN who has been out of nursing for several years to return to work. It includes general medical and surgical nursing, new equipment, procedures, charting, documentation, medications, I.V. therapy, and physician's orders. Students are allowed to perform patient care under the direct supervision of an instructor.

,,

Unit Secretary-This course prepares a person to work as a unit secretary in either a hospital or nursing home. The student is trained to keep and maintain clerical items for doctors and nurses to perform patient treatments. Some of the areas covered include medical and drug terminology, scheduling surgery and special procedures, telephone techniques, receptionist's duties, and the intercom.

See Adult Continuing Education General Course Listings, published each quarter, for courses.

LITERACY EDUCATION PROGRAMS

Adult High School Diploma Program

FTCC, in cooperation with the Winston-Salem/Forsyth County School System and the Stokes County School System, offers day and evening courses for high school credit to adult students who wish to obtain an adult high school diploma. Courses are taught at FTCC West Campus and South Stokes High School.



Classes meet weekly during the day and evening hours. There may be slight variations in time. Each class meets a total of 6 hours per week for 11 weeks. Students may carry as many as 4 courses per quarter. A total of 20 courses is needed to complete the program. A passing score on the high school competency test is required before graduation. No student will receive credit for a course if cumulative absences and/or tardies total more than 6 hours. Late enrollment is not permitted.

Generally, people must be 18 years old or older to enroll. After a six-month wait, however, 16 and 17 year olds may be enrolled by special permission. These applicants must still meet the requirements as set forth in state guidelines. Each enrollee must have completed the eighth grade in an accredited school or the eighth-grade level in the Adult Basic Education Program conducted by the Department of Community Colleges.

Information regarding eligibility, courses needed for graduation, and registration for classes can be obtained from the Admissions Office at FTCC between 8 a.m. and 8 p.m., Monday through Thursday, and between 8 a.m. and 5 p.m., Friday.

Registration is free; however, students must furnish their own books and supplies. Transcripts of work completed will be furnished by the Records Office on written request of the student.

Adult Basic Education Program

The Adult Basic Education Program provides education for the adult who has less than an eighth grade education. It is designed for those adults over 18 years of age whose inability to speak, read, or write the English language makes it difficult for them to find jobs or remain in their present jobs. English as a Second Language classes provide communication instruction to foreign students.

The primary objectives of the program are:

- 1. to enable these adults to become less dependent on others.
- 2. to enhance their ability to benefit from other occupational training.
- 3. to increase their opportunities for better and more rewarding jobs.
- 4. to make them better able to meet their adult responsibilities.

5. to allow them to obtain an eighth grade educational level.

Adult Basic Education classes are held at various locations throughout Forsyth and Stokes counties. Classes are conducted during the day and evening hours. Classes usually meet two nights per week, three hours per night. No fees are charged to the student, and some books and materials are supplied free of charge.

Compensatory Educational Program

The Compensatory Education Program provides educational opportunities that enable mentally handicapped adults to function in society at a level which will allow them to reach their full potential. Areas within the program of study are:

- 1. Language
- 2. Math
- 3. Social Science
- 4. Community Living
- 5. Health
- 6. Consumer Education
- 7. Vocational Education

Compensatory Education classes are held at various locations in Forsyth and Stokes counties as well as on the FTCC campus. No fees are charged to the student, and books and materials are supplied free of charge.

General Education Development (GED)

The Tests of General Educational Development were developed by the American Council of Education for persons who have not graduated from high school. They are designed to measure, as nearly as possible, the skills and concepts generally associated with four years of regular high school instruction.

Using a multiple-choice question format for each of the five tests (Writing Skills, Social Studies, Science, Interpreting Literature and the Arts, and Mathematics), as well as an essay for Writing Skills, the test battery corresponds to the general framework of most high school curriculums. The context of items attempts to measure skills relevant to adult experience, rather than the ability to remember facts, details, or precise definitions.

All fifty states, the District of Columbia, U.S. territories, ten Canadian provinces and territories, and several foreign countries now use results from the GED tests as a basis for issuing high school credentials. These diplomas are official documents that are nearly always accepted as valid credentials by employers and directors of training programs. In addition, all community colleges and some four-year colleges and universities have admissions policies that permit GED test score reports to be accepted in lieu of complete high school transcripts.

Upon successful completion of the GED tests, a high school diploma equivalency is issued by the North Carolina Department of Community Colleges. FTCC is one of the 83 official GED testing centers in the state and is the only one in Forsyth County.

Persons are encouraged to complete a GED Preparation class prior to taking the real test. In order to register for one of these classes, students must call the GED Center at FTCC's West Campus. GED Preparation classes are offered at selected sites throughout Forsyth and Stokes counties.

The GED tests are given by appointment only at FTCC's West Campus. In order to schedule a time for testing, examinees must call the GED Center. There is a \$7.50 fee for taking the GED test.

Even though the GED Program is designed for adults 18 or over, persons 16 and 17 may be admitted when certain conditions are met. The State Board and the Community College System, however, will encourage these persons to complete high school rather than seek testing for the high school diploma equivalency.

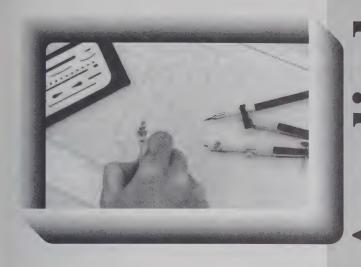
COMMUNITY SERVICE PROGRAMS

The Community Service Programs are designed to provide courses, seminars, and activities that (1) contribute to the community's overall cultural, civic and intellectual growth; and (2) assist adults in the development of new skills or the upgrading of existing ones in their avocational, academic, and practical skills areas of interest.

The Community Service Programs include:

- 1. Academic Extension Courses designed to serve the academic needs of adult citizens, including courses in humanities, mathematics and science, and social science. Some classes that fall in this category: Foreign languages, Investments: Stock Market, Sign Language, Creative Writing.
- 2. **Practical Skills Courses** designed to provide practical training for persons pursuing additional skills which are not considered their major or primary vocation, but may supplement income or may lead to employment. Some classes that fall in this category: Chinese Cooking, Quiltmaking, Sewing: Window Treatments, Woodcarving, Picture Framing and Matting.
- 3. **Avocational Courses -** designed to focus on an individual's personal or leisure needs rather than their occupation, profession, or employment. Some classes that fall in this category: Drawing, Painting, Crafts, Photography, Piano, Stained Glass, Pottery.
- 4. **Cultural and Civic Activities -** designed to meet community needs through lecture and concert series, art shows, seminars, conferences, and exhibitions.





The College's purpose is to offer the technical courses which will prepare the graduate for immediate employment opportunities.

ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAM

The curriculums described on the following pages are technical in nature. Upon completion of a curriculum, the graduate will be awarded the associate in applied science degree. This degree is recognized nationally to indicate the successful completion of two years of education beyond the high school level.

The listing of courses for each curriculum is shown in the proper sequence; consequently,

applicants should plan to attend 21 or 24 consecutive months.

The College's purpose is to offer the technical courses which will prepare the graduate for immediate employment opportunities. Therefore, the ability to transfer to other institutions of higher education, and to transfer credit earned, will be determined by the receiving institution.

SAMPLE COURSE LISTING

			C	L	P	QH
ENG Course Prefix	102 Course Number	COMPOSITION Course Title	3 Classroom Hours Per Week	0 Laboratory Hours Per Week	(or CE) 0 Practicum Per Week (Practical application or clinical experience per week)	3 Quarter Hours Credit

Contact Hours Per Week

ACCOUNTING T-016

CURRICULUM DESCRIPTION:

The purpose of the Accounting curriculum is to prepare the individual to enter the accounting profession through study of accounting principles, theories and practices with related study in law, management and data processing operations.

The curriculum is designed to prepare the individual for entry-level accounting positions such as junior accountant, bookkeeper, accounting

clerk, cost clerk, payroll clerk and related data processing occupations.

With experience and additional education, the individual will be able to advance to positions such as systems accountant, cost accountant, budget accountant and property accountant.

JOB OPPORTUNITIES:

Entry Level

Accountant Estimator Bookkeeper I

Bookkeeping-Machine Operator I

Accounting Clerk

Advanced Level

Budget Accountant Cost Accountant Property Accountant Systems Accountant

Bookkeeper II

Bookkeeping-Machine Operator II

CURRICULUM BY QUARTERS: (118 Total Credit Hours)

Cours	e Title		Hours	Pe	r W	eek
			C	L	P	OH
FII	RSI	FQUARTE	R			•
BUS	102	Keyboarding	3	2	0	4
MAT	119	Principles of Mathemati	cs 5	0	0	5
BUS	120	Accounting I	4	0	3	5
ENG	100	Oral Communication	3	0	0	3
			15	2	<u>0</u> 3	17
SE	CO	ND QUART	TE.	R		
BUS	121	Accounting II	4	0	3	5
ECO	149	Macroeconomics	5	0	0	5
EDP	101	Principles of Business				
		Data Processing	3	2	0	4
ENG	101	Introduction to				
		Written Communication	1 <u>3</u>	<u>0</u> 2	0	3
			15	2	$\frac{0}{3}$	17
TH	IR	D QUARTE	R			
BUS	122	Accounting III	4	0	3	5
BUS	210	Business Statistics	5	0	0	5
BUS	229	Taxes	2	0	3	3
EDP	103	Introduction to				
		Microcomputing DOS	3	0	0	3
ENG	102	Composition	3	0	<u>0</u>	3
			17	0	6	19
		TH QUAR	LE.	R		
BUS	109	Business Mathematics	5	0	0	5
BUS	115	Business Law I	3	0	0	3
BUS	221	Intermediate				
		Accounting I	5	0	0	5
BUS	230	Advanced Taxes	2	0	<u>3</u>	3
			15	0	3	16

JAK	CIL	EKS: (118 Total	Cred	lit E	lou	rs)
Cours	e Title		Hour	s Pe	r W	eek
			C	L	P	OH
FII		H QUARTE	R			
BUS	116	Business Law II	3	0	0	3
BUS	222	Intermediate Accounting	II 5	0	0	5
BUS	280	Microcomputer				
		Accounting Application	ıs:			
		General Ledger	3	0	0	3
EDP	152	Financial Spreadsheet				
		Operations I	3	0	0	3
ENG	205	Report Writing	<u>3</u> 17	0	0	<u>3</u> 17
				0	0	17
SIX	KTI	H QUARTE	R			
BUS	225	Managerial Cost				
		Accounting I	3	2	0	4
BUS	227	Intermediate Accounting	Ш 5	0	0	5
BUS	269	Auditing I	3	2	0	4
ENG	115	Appreciation of Literatu	re <u>3</u>	0	0	3
			14	4	0	16
		NTH QUAF	RT]		₹	
BUS	224	Advanced Accounting	3	2	0	4
BUS	226	Managerial Cost				
		Accounting II	3	2	0	4
BUS	270	Auditing II	3	2	0	4
PSY	101	Psychology	3	0	0	3
			12	6	0	15

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

ADMINISTRATIVE OFFICE TECHNOLOGY T-030

CURRICULUM DESCRIPTION:

This curriculum prepares individuals to perform secretarial and administrative support duties in a variety of offices including those offices with computerized, automated functions.

Students in this curriculum study keyboarding and word/information processing to develop skills in the preparation of business correspondence. reports, statistical copy, manuscripts and business

forms. Administrative support courses emphasize typical office tasks such as scheduling appointments, composing correspondence and

performing reprographic duties. Training is also provided in analyzing and coordinating office duties and systems. Skills and knowledge are taught in the areas of electronic document storage and retrieval and computer software utilization.

Graduates of the curriculum may be employed in offices in private business establishments involved in retailing, marketing, advertising, and manufacturing as well as offices in local, state, and federal government.

JOB OPPORTUNITIES:

Entry Level

Secretary Stenographer Data Typist **Typist**

Office Clerk

Word Processing Correspondence Specialist Word Processing Typist

Word Processing Administrative Secretary

Receptionist

Advanced Level

Administrative Secretary Transcribing Operator Supervisor Word Processing Supervisor

CI	UR	RICULUI	VI	B	\mathbf{Y}	
Cour	se Tit	le I	Iours	Per	·W	eek
			C	L	P	QH
		T QUARTE	R			
BUS	102	Keyboarding	3	2	0	4
BUS	128	Personal Financial				
		Management	5	0	0	5
EDP	103	Introduction to				
		Microcomputing DOS	3	0	0	3
ENG	100	Oral Communication	3	0	0	3
MAT	119	Principles of Mathematic	cs 5	0	0	5
			19	2	0	20
SE	CO	ND QUART	ER			
BUS	103	Document Formatting	3	2	0	4
BUS	109	Business Mathematics	5	0	0	5
BUS	113	Vocabulary/Terminology	y I 3	0	0	3
BUS	250	Word Processing/				
		WordPerfect	1	4	0	3
ENG	101	Introduction to Written				
		Communication	3	0	0	3
			15	6	$\bar{0}$	18
TH	IIR	D QUARTE	R		-	
BUS	104	Document Production/				
		Word Processing	3	2	0	4
BUS	114	Vocabulary/Terminology		0	0	3
BUS	115	Business Law I	3	0	Ŏ	3
ENG	102	Composition	3	0	0	3
PSY	101	Psychology	3	0	0	3
		, 0,	15	2	0	16
FO	UF	RTH QUART	ΓE	R		
BUS	106	Shorthand I	3	2	0	4
		OR	OR			
BUS	112	Machine Transcription I	3	2	0	4
BUS	105	Advanced Word Processi	ing	_		
		Applications	3	2	0	4
BUS	211	Proofreading and Filing	2	0	3	3
ENG	205	Report Writing	3	0	0	3
			11	4	3	14
					0	1.7

UA	\mathbf{R}'	TERS: (117 Te	otal Cr	edit	Ho	urs)
Cour	se Tit	le	Hours	Pe	r W	eek
			C	L	P	QH
FI		H QUARTE	CR			-
BUS	107	Shorthand II	3	2	0	4
		OR	OR			
BUS	212	Machine Transcription II	3	2	0	4
BUS	118	Secretarial Acct. I	4	0	3	5
EDP	101	Principles of Business				
		Data Processing	3	2	0	4
EDP	150	Data Base Management				
		Systems I	3	0	0	3
ENG	115	Appreciation of Literat	ure 3	0	<u>0</u> 3	3
			16	4	3	19
SI	XT	H QUARTE	CR			
BUS	108	Shorthand III	3	2	0	4
		OR	OR			
BUS	215	Machine Transcription III	3	2	0	4
BUS	119	Secretarial Acct. II	4	0	3	5
BUS	214	Adm. Office Procedures	5	0	0	5
BUS	240	Word Processing/Word	2	0	3	3
			14	2	6	17
		NTH QUAR		R		
BUS	206	Dictation/Transcription	2	0	3	3
		OR	OR			
BUS	280	Microcomputer				
		Acct. Applications:				
		General Ledger	3	0	0	3
BUS	272	Principles of Supervision	3	0	0	3
EDP	152	Financial Spreadsheet				
-		Operations I	3	0	0	3
EDP	173	Desktop Publishing I	3	0	0	3
			12	0	0	12
			OR			
			11	0	3	12
T 11						

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

ARCHITECTURAL TECHNOLOGY T-041

CURRICULUM DESCRIPTION:

The Architectural Technology curriculum provides individuals with knowledge and skills that will lead to employment and advancement in the field of architectural technology. Technical courses are included which will enable the graduate to advance into related areas of work as job experience is obtained or to continue toward an advanced degree in an associated field of technology.

Architectural technicians translate the

architect's design sketches into complete and accurate plans and drawings for construction purposes. The technician will be involved in work requiring a knowledge of drafting, construction materials, mechanical and structural systems, estimating, building codes, and specifications.

Initial employment opportunities exist with architectural and engineering firms, private utilities, contractors, and municipal governments.

JOB OPPORTUNITIES:

Architectural and Construction-Related Drafting Technician

Building Code Inspector

Estimator

Field Inspector (Buildings)

Construction Supervisor

Delineator

Model Builder

Building Materials Sales Representative

CU	JR	RICULUM	E	3 7	7	Q
Cours	e Title	е Но	urs	Per	·We	eek
			C	L	P	QH
FII	RS	F QUARTER				
ARC	104	Architectural Materials				
		and Methods I	2	0	0	2
ARC	106	Architectural Drafting I	2	0	6	4
ARC	181	History of Architecture				
		and Construction	3	0	0	3
CAD	151	Computer Graphics	2	2	0	3
MAT	101	Technical Mathematics I	5	0	0	5
ENG	100	Oral Communication	3	0	0	3
			17	2	6	20
		ND QUART	E)	R		
ARC	105	Architectural Materials				0
		and Methods II	3	0	0	3
ARC	107	Architectural Drafting II	2	0	6	4
CAD	152	Computer Aided Drafting I	1	0	3	2
ENG	101	Introduction to				
		Written Communication	3	0	0	3
MAT	102	Technical Mathematics II	5	0	0	5
			14	0	9	17
		D QUARTE		_	_	0
ARC	108	Architectural Drafting III	0	0	9	3
ARC	109	Architectural Mechanical	_		_	4
CID	1.50	Equipment	3	0	3	4
CAD	153	Computer-Aided Drafting I		2	0	3 5
MAT	103	Technical Mathematics III		0	0	
PHY	111	Physics - Mechanics	3	24	0	4
EO	W TW		13		12	19
ARC		RTH QUART	2	0	6	4
ARC	150 160	Site Planning	2	U	0	4
ARC	100	Elementary Structures of Architects and Builders	5	0	0	5
CAD	154		1	2	0	2
ECO	102	Computer Aided Drafting III Economics I	3	0	0	3
PHY	113	Physics - Electricity	3	2	0	4
rni	113	Filysics - Electricity	14	4	6	18
			14	4	U	10

JARTERS: (121 Total Credit Hours Course Title Hours Per Week						
			C	L	P	QH
FII	TE	H QUARTER	2			-
ARC	219	Architectural Portfolio	2	4	0	4
ARC	220	Architectural Drafting IV	2	0	9	5
ENG	102	Composition	3	0	0	3
PSY	101	Psychology	3	0	0	3
		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10	<u>0</u> 4	9	15
SIZ	KT	H QUARTER	2			
ARC	221	Architectural Drafting V	2	0	9	5
ARC	235	Codes, Specifications,				
		and Contract Documents	3	0	3	4
CAD	155	Computer-Aided				
		Drafting Applications	1	4	0	3
ENG	103	Technical Report Writing	3	0	0	3
		•	9	4	12	15
SE	VI	ENTH QUAR	T	El	R	
ARC	222	Architectural Drafting VI	2	0	9	5
ARC	236	Construction Estimating				
		and Field Inspecting	3	0	3	4
ENG	115	Appreciation of Literature	3	0	0	3
PHY	114	Physics - Light and Sound	3	2	0	4
			11	2	12	16
In add	lition	to the required curriculum	cc	urse	es, e	each

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

ASSOCIATE DEGREE NURSING T-059

CURRICULUM DESCRIPTION:

The Associate Degree Nursing curriculum is designed to prepare graduates to integrate the principles and theories of nursing and the sciences in utilizing the nursing process in the practice of nursing. The practice of nursing by Associate Degree Nursing graduates consists of (1) assessing the patient's physical and mental health, including the patient's reaction to illness and treatment regimens; (2) recording and reporting the results of the nursing assessment; (3) planning. initiating, delivering, and evaluating appropriate nursing acts; (4) teaching, delegating to or supervising other personnel in implementing the treatment regimen; (5) collaborating with other health care providers in determining the appropriate health care for a patient; (6) implementing the treatment and pharmaceutical regimen prescribed by any person authorized by state law to prescribe such a regimen: (7) providing teaching and counseling about the patient's health care; (8) reporting and recording the plan for care, nursing care given, and the patient's response to that care; and (9) supervising, teaching, and evaluating those who perform or are preparing to perform nursing functions.

Graduates are eligible to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a registered

Individuals desiring a career in registered nursing should take biology, algebra, and chemistry courses prior to entering the program.

JOB OPPORTUNITIES:

Registered Nurse

CURRICULUM BY QUARTERS: (120 Total Credit Hour

Course Title	Hours Per Week			veek
	C	L	CE	QH
FIRST QUARTE	CR			
BIO 107 Anatomy and				
Physiology I	3	2	0	4
BUS 141 Medical Vocabulary		_		
and Terminology	3	0	0	3
NUR 119 Pharmacology	2	2	0	3
NUR 120 Medical-Surgical			U	3
8-1-1-	4	2	6	7
Nursing I	4	2	6	7
SECOND ONLD	12	6	6	17
SECOND QUAR		K		
BIO 108 Anatomy and				
Physiology II	3	2	0	4
NUR 122 Medical-Surgical				
Nursing II	5	2	6	8
NUT 101 General Nutrition and				
Diet Therapy	3	0	0	3
PSY 101 Psychology	3	0	0	3
, 3,	14	4	6	18
		Ċ	Ŭ	
THIRD QUARTE	ER			
BIO 111 Microbiology	3	2	0	4
NUR 124 Medical-Surgical	3	2	U	4
Nursing III	4	-	10	0
		2	12	9
PSY 110 Lifespan Psychology	3	0	0	3
EOHDEH OTAN	10	4	12	16
FOURTH QUAR				
BIO 112 Pathology	3	0	0	3
ENG 101 Introduction to				
Written Communication	on 3	0	0	3
NUR 126 Medical-Surgical				
Nursing IV	5	0	12	9
PSY 111 Abnormal Behavior	3	0	0	3
	14	0	12	18
FIFTH QUARTE				10
ENG 100 Oral Communication	3	0	0	3
NUR 225 Maternal/Newborn	3	U	J	5
Nursing (1/2 quarter)	6	0	12	5
NUR 226 Nursing of Children	U	U	12	J
and a constitution		_		~
(1/2 quarter)	6	0	12	5
OR NUR 224 Psychiatric Nursing	OR			
Jointaine Traibing				
(1/2 quarter)	6	0	12	5
NUR 227 Care of the Older Adul	lt			
(1/2 quarter)	6	0	12	5
SOC 103 Sociology	3	0	_0	3
	18	0	24	16

L	JAI	< ⊥ .	ERS: (120 Total C	rea	II H	lour	S)
	Cours	e Titl	e H	lour	s Pe	r W	eek
				C	L	CE	QH
	SI	XT:	H QUARTE	R			
	EDP	102	Microcomputer Concepts	3	0	0	3
		115			0	0	3
	NUR	225	Maternal/Newborn Nursi	ng			
			(1/2 quarter)	6	0	12	5
	NUR	226	Nursing of Children				
			(1/2 quarter)	6	0	12	5
			OR	OR			
	NUR	224	Psychiatric Nursing				
			(1/2 quarter)	6	0	12	5
	NUR	227	Care of the Older Adult				
ı			(1/2 quarter)	6	0	12	5
				18		24	16
	SE	VE	NTH QUAR		Ð	R	
ı	NUR	200	Seminar	3	0	0	3
ı	NUR	228	Advanced Medical-				
1			Surgical Nursing I	4	0	18	10
				7	0	18	13
	EI	GH	TH QUART	D	R		
	NUR	229	Advanced Medical-				
			Surgical Nursing II				

(1/2 quarter) <u>0</u> 18 0.18

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

AUTOMATION/ROBOTICS TECHNOLOGY T-173

CURRICULUM DESCRIPTION:

The Automation/Robotics curriculum is designed to prepare technicians to install, program, operate, maintain, service and repair automated manufacturing systems, including robots.

The course of study will include fundamentals of mechanical, electrical, and electronic technology with specific application of robots, controlling devices, and electromechanical equipment in automated manufacturing systems.

The graduate of this curriculum will be prepared for employment in industries that utilize robots and other electromechanical devices in automated manufacturing.

JOB OPPORTUNITIES:

Electromechanical Technician Automation Technician Automation/Robotics Technician Manufacturing Systems Technician

CURRICULUM BY QUARTERS: (127 Total Credit Hours)

Cours	e Title	e Ho	ours	Per	w	eek
Cours			C	L	P	OH
FII	RS.	FQUARTER				
CET						
		Engineering Technology I	0	0	3	1
ELC	101	Fundamentals of				
		Electricity I	5	0	6	7
ENG	101	Introduction to				
		Written Communication	3	0	0	3
MAT	101	Technical Mathematics I	5	0	0	5
			13	0	9	16
SE		ND QUART	DI	R		
CET	106					
		Engineering Technology II	0	0	3	1
ELC	102	Fundamentals of				
		Electricity II	5	0	6	7
ENG	102	Composition	3	0	0	3
MAT	102	Technical Mathematics II	<u>5</u>	0	0	<u>5</u>
			13	0	9	16
		D QUARTE				
ELN	110	Transistor Applications	5	2	6	8
ENG				0	0	3 5
	103	Technical Mathematics III		0	0	5
PHY	111	Physics - Mechanics	3	2	0	4
			16	4	6	20
		RTH QUART		R		
DFT	112					
		Electromechanical	3	2	0	4
ELM			3	0		
ELN			5	2	6	8
PHY	112	Physics - Materials				
		and Heat	3	2	0	4
			14	6	0	20

Cours	e Titl	e Ho	urs	Pe	r W	eek
			C	L	P	QH
FII		H QUARTER				
ELM	210	Electromechanical Devices	4	0	6	6
ELM	215	Electrical Control Systems	5	0	6	7
ENG	115	Appreciation of Literature	3	0	0	<u>3</u>
			12	0	12	16
SI	KT!	H QUARTER	2			
ELM	220	Automatic Control				
		Systems I	4	0	3	5
ELN	219	Digital Fundamentals	5	0	6	
MEC	230	Hydraulics and Pneumatics	3	2	0	4
PSY	101	Psychology	3	0	0	3
		,	15	2	9	19
SE	VE	NTH QUAR	TI		R	
ECO	102	Economics I	3	0	0	3
ELM	230	Automatic Control				
		Systems II	5	0	3	6
ELM	240	Electromechanical				
		Troubleshooting	3	0	3	4
ELN	225	Computers and				
		Microprocessors	4	0	6	6
			15	0	12	19

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

BANKING AND FINANCE T-112

CURRICULUM DESCRIPTION:

The purposes of the Banking and Finance curriculum are (1) to prepare the individual to enter the banking and finance industry, (2) to provide an educational program for the banking employees wanting to receive the American Institute of Banking certificate, and (3) to provide an educational program to upgrade or retrain individuals presently employed in the banking or finance industry.

JOB OPPORTUNITIES:

Entry Level Accounting Clerk Teller

BUS 116

BUS 122 ECO 104

Business Law II

Accounting III

Economics II

General Clerk Collector and Adjuster

These purposes will be fulfilled through study in areas such as banking and finance principles, theories and practices; teller operations; lending and collections procedures; financial analysis; marketing; and public relations.

This curriculum will provide the opportunity for an individual to enter a variety of banking or finance jobs in retail banks, commercial banks, government lending agencies, mortgage banks,

and credit companies.

Advanced Level

Branch Manager Departmental Manager, Advertising Departmental Manager, Budget Departmental Manager, Personnel and Training

Banking Staff Assistant

CI	UR	RICULUM	I I	37	7	QI	U A I	R T	ERS: (118 Total	Cred	lit H	our	rs)
Cour	se Titl	le H	lour	s Pe	r W	Veek	Cour	se Tit	le 1	Hour	s Pe	r W	Veek
			C	Ł	P	QH				C	L	P	Q
FI	RS'	T QUARTEI	3				FI	FT	H QUARTE	R			
AIB	202	Principles of Banking	4	0	0	4	AIB	205	Bank Management	4	0	0	4
BUS	102	Keyboarding	3	2	0	4	BUS	128	Personal Financial				
ENG	100	Oral Communication	3	0	0	3			Management	5	0	0	5
MAT	119	Principles of Mathematic	s <u>5</u>	0	0	5	ENG	205	Report Writing	3	0	0	3
			15	2	0	16	PSY	101	Psychology	3	0	0	3
		OND QUART	NE	R					, 2,	15	0	0	15
AIB	209	Installment Credit	4	0	0	4	SE	XT	H QUARTE	R			
BUS	109	Business Mathematics	5	0	0	5	AIB	203	Bank Investments	4	0	0	4
BUS	120	Accounting I	4	0	3	5	BUS	209	Real Estate Finance	5	0	0	5
EDP	103	Introduction to					BUS	229	Taxes	2	0	3	3
		Microcomputing DOS	3	0	0	3	ENG	115	Appreciation of Literatur	e 3	0	0	3
ENG	101	Introduction to							*1	14	0	3	15
		Written Communication	3	0	0	3	SE	VE	ENTH QUAR		Ē	₹	10
			19	0	<u>0</u> 3	20	AIB	235	Loan and Discount	3	0	0	3
201	ГH	IRD QUART		R			AIB	239	Marketing for Bankers	4	0	0	4
AIB	236	Trust Functions					BUS	210	Business Statistics	5	0	0	5
		and Services	4	0	0	4	BUS	272	Principles of Supervision	3	0	0	3
BUS	115	Business Law I	3	0	0	3	BUS		Elective	3	0	0	3
BUS	121	Accounting II	4	0	3	5				18	0	0	18
ECO	102	Economics I	3	0	0	3				10	•	·	
ENG	102	Composition	3	0	0	3	In add	ition to	the required curriculum cou	ırses.	each	stu	dent
			17	0	3	18			red to complete an addition				
FO	UI	RTH QUART	ND	R			foram	inimu	m of one (1) credit hour in or	rder 1	orec	eiv	e the
AIB	231	Savings and Time Denosi		Ω	0	4			ee This course will be				

0 0

0 3 5

0 0 A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

BUSINESS ADMINISTRATION T-018

CURRICULUM DESCRIPTION:

The Business Administration curriculum is designed to prepare an individual for entry into middle-management occupations in various businesses and industries. The curriculum provides an overview of the business and industrial worldits organization and management.

The purpose of the curriculum will be fulfilled through courses designed to develop competency in (1) understanding the principles of organization and management in business operations, (2)

utilizing modern techniques to make decisions, (3) understanding the economy through study and analysis of the role of production and marketing, (4) communicating orally and in writing, and (5) interpersonal relationships.

Through these skills and through development of personal competencies and qualities, the individual will be able to function effectively in middle-management activities in business or industry.

JOB OPPORTUNITIES:

Entry Level
Purchasing Agent
Sales Manager
Public Relations Representative
Sales-Service Promoter
Training Representative
General Supervisor
Credit Card Operations Manager
Operations Officer
Loan Officer
Volunteer Services Supervisor

Customer Services Manager

Residence Supervisor

Personnel Manager
Credit and Collection Manager
Customer Service Manager
Branch Manager
Production Superintendent
Traffic Manager
Credit Union Manager
Housing Project Manager
Market Manager
Loan Counselor
Office Manager
Department Manager
Warehouse Manager

Advanced Level

CURRICULUM BY QUARTERS: (115 Total Credit Hours) Hours Per Week | Course Title Hours Per Weel Hours Per Weel

CU	JR	RICULUM	1 L	3 7	((QI
Cours	se Titl	e l	Hours			
			C	L	P	QН
		F QUARTE	R			
BUS	101	Introduction to Business	5	0	0	5
BUS			3	2	0	4
ENG	100		3	0	0	3
MAT	119	Principles of Mathematic		<u>0</u> 2	0	3 <u>5</u> 17
SE	CC	ND QUART	16 CTC		0	1/
BUS	109		5	0	0	5
BUS			4	0	3	5
ECO	102		3	0	0	3
ENG	101	Introduction to				
		Written Communication	3	0	0	3
			15	0	3	16
TH	IIR	D QUARTE	R			
BUS	115	Business Law I	3	0	0	3
BUS	121		4	0	3	5
ECO		Economics II	3	0	0	3
EDP	101	Principles of Business				
		Data Processing	3	2	0	4
ENG	102	Composition	<u>3</u>	0	<u>0</u> 3	3
			16	2	3	18
		RTH QUAR				
BUS	116	Business Law II	3	0	0	3
BUS			4	0	3	5 3 5
BUS	229		2	0	3	3
BUS	239	Marketing	5	0	0	5
EDP	103	Introduction to	2	0	0	2
		Microcomputing DOS	3	0	0	10
			17	0	6	19

Cours	se Titl	e	Hours	Pe	r W	eek
			C	L	P	QH
FII	FIL	H QUARTE	R			
BUS	128	Personal Financial				
		Management	5	0	0	5
BUS	232	Sales Development	3	0	0	3
ENG	205	Report Writing	3	0	0	5 3 3 3
PSY	101	Psychology	3	0	0	
			14	0	0	14
SI	KT.	H QUARTE	\mathbf{R}			
BUS	245	Advertising Using				
		Desktop Graphics	3	2	0	4
BUS	280	Microcomputing				
		Accounting Application				
		General Ledger	3	0	0	3
EDP	152	Financial Spreadsheet				
		Operations I	3	0	0	3
ENG	115	Appreciation of Literatu		0	0	3 3 3
BUS		Elective	<u>3</u>	0	0	
			15	2	0	16
SE	VE	ENTH QUAI				
BUS	235		5	0	0	5
BUS	272			0	0	3
BUS		Electives	<u>6</u>	0	0	6
			14	0	0	14

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

BUSINESS COMPUTER PROGRAMMING T-022

CURRICULUM DESCRIPTION:

The primary objective of the Business Computer Programming curriculum is to prepare individuals for gainful employment as computer programmers. The objective is fulfilled through study and application in areas such as computer and systems theories and concepts, data processing techniques, business operations, logic, programming procedures and languages, and

types, uses and operation of equipment.

Entry-level jobs as computer programmer and computer programmer trainee are available. With experience and additional education, the individual may enter jobs such as data processing manager, computer programmer manager, systems analyst and systems manager.

JOB OPPORTUNITIES:

Entry Level Computer Programmer

111

EDP 210 Mainframe Computer

COBOL Programming II 3

Operating Systems

EDP 245 UNIX Operating System 3

Computer Programmer Trainee Information Systems Programmer **Process Control Programmer** Detail Programmer

Advanced Level

Data Processing Manager/Supervisor Computer Operations Manager/Supervisor Chief Business Programmer Data Processing Programmer/Analyst

CI	UR	RICULUN		B	\mathbf{Y}	Q	UA	RI	FERS: (116 Total	Cre	dit I	Iou:	rs)
Cour	se Tit	le I	Hour	s Pe	er V	Veek	Cours	se Tit	le H	ours	e Pe	r W	eek
			C	L	P	QH				C	L	P	QH
FI	RS	T QUARTE	R				FI	FT	H QUARTE	R			
MAT	119	Principles of					EDP		Minicomputer Operating				
		Mathematics	5	0	0	5			Systems	3	2	0	4
EDP	100	Introduction to					EDP	205	Systems Analysis and				
		Data Processing	3	2	0	4			Design	3	2	0	4
EDP	107	Logic and Decision					EDP	270	RPG III Programming I	3	2	0	4
		Making I	3	0	0	3	ENG	102	Composition	3	0	0	3
EDP	140	BASIC Language					PSY	101	Psychology	3	0		3
		Programming I	3	2	0	4			,	3 15	6	0	18
		8	14	4	0	16	SI	KT	H QUARTE		·	Ü	10
SE	CC	OND QUAR	TF	C TR		10		106	Assembler Language				
EDP	105	Assembler Language							Programming II	3	2	0	4
		Programming I	5	2	0	6	EDP	242	C Programming Language		2	0	4
EDP	108	Logic and Decision		_			EDP	271			2	0	4
		Making II	3	0	0	3		115		3	õ	0	3
ENG	100	Oral Communication	3	0	0	3	2110	110	Approviation of Enterature	12	6		15
MAT	117	EDP Mathematics	5	0	0	5	SE	VE	ENTH QUAR				
			16	2	0	17	EDP	208	Advanced Programming		2	0	4
TH	HR	D QUARTI		_		. ,	EDP	220	Research Project	3	2	0	4
BUS	120	Accounting I	4	0	3	5	EDP	260	EDP Microcomputing	3	2	0	4
BUS	210	Business Statistics	5	0	0	5	ENG	205	Report Writing	3	$\tilde{\underline{0}}$	0	3
EDP	110	COBOL Programming		2	0	4	2110	200	Report Willing	<u>3</u> 12	6		15
ENG	101	Introduction to		2	Ü	,				12	U	U	13
		Written Communication	1 3	0	0	3	In addi	tion to	the required curriculum cour	292	each	etn	dent
			15	2	3	17	will be	requi	red to complete an addition	al on	e (1) co	ucill
FO	UI	RTH QUAR				17	foram	inimu	m of one (1) credit hour in or	dert	o rec	eiv	e the
BUS	121	Accounting II	4		3	5			ee. This course will be d				
		CODOL D : 1			0	,	X153	- acgi	co. This course will be u	Colg	matt	ua	s an

0 4

0

A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

COMPUTER ENGINEERING TECHNOLOGY T-040

CURRICULUM DESCRIPTION:

This program is intended to provide the skills required to install, service and maintain computers, microprocessor- and computercontrolled equipment and computer peripheral devices.

The curriculum provides training in both the hardware and software areas of the computer field.

A sequence of introductory hardware courses provides the student with a strong background in physics, technical mathematics, electricity, electronics, and digital logic circuits and concepts. Advanced course work provides a detailed study of the logic of the central processing unit, the operation of integrated circuits in the central processing unit, the operation and use of integrated circuit memory devices and the interfacing of the central processing unit to memory devices. Additional studies cover interfacing the central processing unit to external devices using both serial and parallel data transfer, the operation of large scale integration programmable interface units and their interfacing with the central processing unit, and the operation of computer peripheral devices such as video displays, printers, floppy disk storage systems, magnetic tape units, keyboards and the techniques of converting signal between the analog and digital forms.

The programming course work provides a sequence of study stressing good program design techniques, structured programming and program documentation. Rather than being familiar with a large number of programming languages, the student is expected to learn well a highly structured language, such as Pascal, and an assembly language. The importance of assembly language to the understanding of the operation of the central processing unit and the related computer units is stressed. Computer operating system concepts are discussed to provide a unified view of the hardware and software aspects of the computer system.

JOB OPPORTUNITIES:

Computer Service Technician Electronic Computer Mechanic Electronic Systems Mechanic

ELN 210

ELN

219

Digital Fundamentals

Linear Integrated Circuits

Programming

CURRICULUM BY QUARTERS: (125 Total Credit Hours)

Cours	Course Title			s Pe	r W	eek	Course Title Hours Per Week
			C	L	P	QH	C L P QH
FII	RST	FOUARTE	R				FIFTH QUARTER
CET	105	Computer Tools for					CET 200 Microprocessors 4 0 6 6
		Engineering Technology	0 I	0	3	1	ELN 235 Industrial Electronics I 5 0 6 7
ELC	101	Fundamentals of					ENG 103 Technical Report Writing 3 0 0 3
		Electricity I	5	0	6	7	PSY 101 Psychology <u>3 0 0 3</u>
ENG	100	Oral Communication	3	0	0	3	15 0 12 19
MAT	101	Technical Mathematics	I <u>5</u>	0	0	5	SIXTH QUARTER
			13	0	9	16	CET 215 Mini-Computer
SE	CC	ND QUAR	TE	R			Maintenance I 4 0 6 6
CET	106	Computer Tools for					CET 220 Microprocessor Interfacing 4 0 6 6
		Engineering Technology	II 0	0	3	1	PHY 114 Physics - Light and Sound 3 2 0 4
ELC	102	Fundamentals of					11 2 12 16
		Electricity II	5	0	6	7	SEVENTH QUARTER
ENG	101	Introduction to					CET 225 Mini-Computer
		Written Communication	3	0	0	3	Maintenance II 4 0 6 6
MAT	102	Technical Mathematics	II <u>5</u>	0	0	<u>5</u>	CET 232 Computer Peripherals 4 0 6 6
			13	0	9	16	CET 242 Concepts of Computer
TH	IIR	D QUARTE	CR				Networking and Data
ELN	110	Transistor Applications	5	2	6	8	Communications 2 0 3 3
ENG	102	Composition	3	0	0	3	ENG 115 Appreciation of Literature 3 0 0 3
MAT	103	Technical Mathematics	III 5	0	0	5	13 0 15 18
PHY	111	Physics - Mechanics	3	2	0	4	
			16	4	6	20	In addition to the required curriculum courses, each student
FO	UF	RTH QUAR	TE	R			will be required to complete an additional one (1) course
CET	160	Assembly Language					for a minimum of one (1) credit hour in order to receive the

3

2 6 8

 $\begin{array}{cccc} \underline{0} & \underline{6} & \underline{7} \\ 2 & 15 & 19 \end{array}$

5

<u>5</u>

for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

DRAFTING AND DESIGN ENGINEERING TECHNOLOGY T-043

CURRICULUM DESCRIPTION:

The Drafting and Design Engineering Technology curriculum prepares technicians for drafting and/or designing mechanical parts, mechanisms and mechanical systems.

Emphasis is placed on developing the student's ability to think and plan as well as on the development of drafting and design skills. Computer Aided Drafting (CAD) and conventional equipment will be used to produce drawings such as sectional views, subassemblies and major components of machinery and mechanical systems.

Coursework includes the study of technical drafting and design, materials, applied mechanics, mechanical systems, manufacturing methods, manufacturing processes, applied physics, technical mathematics, descriptive geometry, computer applications, and written and oral communications.

Drafting and design technicians are employed in many types of manufacturing, fabrication, research and development, and service industries

JOB OPPORTUNITIES:

Mechanical Design Technician Mechanical Drafter Tool Design Drafter CAD Drafter/Designer Detail Drafter

CURRICULUM BY QUARTERS: (122 Total Credit Hours)

CURRICULUM BY QUARTERS: (122 Total Credit Hours)													
Cours	e Title	e H	ours	e Pe	r W	eek	Cours	se Titl	e	Hours	s Pe	r W	eek
			C	L	P	QH				C	L	P	QH
		Г QUARTEF					FI	FT	H QUARTE	R			
	151	Computer Graphics	2	2	0	3	CAD	154	Computer Aided				
CET	105	Computer Tools for Engin	neeri	ng					Drafting III	1	2	0	2
		Technology I	0	0	3	1	DFT	204	Descriptive Geometry	2	0	3	3 2
DFT	101	Technical Drafting I	1	0	3	2	DFT	206	Design Drafting II	1	0	3	2
ENG	101	Introduction to Written					DFT	260	Geometric Dimensionii	ng			
		Communication	3	0	0	3			and Tolerancing	1	0	3	2
MAT		Technical Mathematics I	5	0	0	5	MEC	205	Strength of Materials	3	2	0	4
MEC	101	Machine Processes I	1	0	6	3	PHY	113	Physics - Electricity	3	2	0	4
			12	2	12	17				11	6	9	17
		ND QUART					SE	XT.	H QUARTE	CR			
CAD		Computer Aided Drafting	I1	0	3	2	DFT	211	Mechanisms	3	0	3	4
DFT	102	Technical Drafting II	1	0	3	2	DFT	223	Design Drafting III	2	0	6	4
ENG	102	Composition	3	0	0	3	ENG	100	Oral Communication	3	0	0	3
MAT	102	Technical Mathematics II	5	0	0	5	MEC	237	Control Systems	3	2	0	4
MEC	102	Machine Processes II	1	0	6	3	PSY	101	Psychology	3	0	0	3
PHY	111	Physics - Mechanics	3	2	0	4				14	2	9	18
			14	2	12	19	SE	VE	NTH QUA	RT	D I	R	
		D QUARTE					DFT	212	Jig and Fixture Design	2	0	6	4
CET	106	Computer Tools for Engir	ieerii				DFT	224	Product Design	1	0	3	2
-		Technology II	0	0	3	1	DFT	225	Computer Graphics Des	sign 1	0	3	2
DFT	103	Technical Drafting III	1	0	3	2	ECO	102	Economics I	3	0	0	3
ENG	103	Technical Report Writing		0	0	3	ENG	115	Appreciation of Literatu	ire 3	0	0	3
MAT	103	Technical Mathematics II		0	0	5			**	10	ō	12	14
MEC	201	Manufacturing Processes	[1	0	6	3							
PHY	112	Physics - Materials					Inadd	ition to	the required curriculum c	ourses,	eacl	h stu	dent
		and Heat	3	2	0	4			red to complete an additi				

 $\frac{3}{13}$ $\frac{2}{2}$ $\frac{0}{12}$ $\frac{4}{18}$

0 0 5

0

1 0 3

3 0 3 4

FOURTH QUARTER

Design Drafting I

Applied Mechanics

Ferrous Metallurgy

CAD 153 Computer Aided

DFT 205

MEC 104

MEC 210

MEC 235

Drafting II

Fluid Power

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

EARLY CHILDHOOD ASSOCIATE T-073

CURRICULUM DESCRIPTION:

The Early Childhood Associate curriculum prepares individuals to work with programs and/or centers concerned with the care and development of infants and young children. Through study and application in such areas as child growth and development, physical and nutritional needs of children, care and guidance of children, and communication with children and their parents, individuals will be able to function effectively in various programs and/or centers dealing with preschool children.

Job opportunities are available in such areas as day care centers, nursery schools, kindergartens, child development centers, hospitals, rehabilitation clinics, evaluation clinics, camps, and recreational centers.

JOB OPPORTUNITIES:

Entry Level Child Care Worker Day Care Worker Child Care Assistant Professional Nanny

Advanced Level Director, Day Care Director, Preschool

	J R se Titl		ours	Per	r W	eek OH	-	RT se Tit	TERS: (107 Total C	urs	Per		eek
FI	RS	T QUARTE				-	FI	FT	H QUARTE	R			-
EDU	101	Child Growth and					EDU	105	Music and Creative				
		Development	6	0	0	6			Movement for				
ENG	100	Oral Communication	3	0	0	3			Young Children	3		0	3
HEA	102	Personal Health	5	0	0	5	EDU	106	Activities for Young Chi	ldre	n:		
PSY	102	General Psychology	5	0	0	5	İ		Science and Math	5			6
			19	0	0	19	ENG	116	Children's Literature	3	0	0	3
		ND QUAR	IE	CR	2		SOC	103	Sociology	3	0	0	3
EDU	102									14	0	$1\overline{0}$	15
		Young Children	3	2	0	4			H QUARTE	R			
EDU	107	Communication with					EDU	109	Physical Activities:				
		Young Children	2	2	0	3			Games for Young				
ENG	101	Introduction to							Children	1	2	0	2
		Written Communication	3	0	0	3	EDU	202	Curriculum Development	t			
MAT	118	General Mathematics	3	0	0	3			and Planning	4		10	5
PSY	205	Child Psychology	3	0	0	3	EDU	203	The Exceptional Child	3	0	0	3
			14	4	0	16	SOC	105	Families in the				
TI	IIR	D QUARTE	ER						American Culture	3	0	0	3
EDU	103	Working with								11		10	
		Young Children	3		10	4			ENTH QUAR	T	ID	R	
ENG	102	Composition	3	0	0	3	EDU	206	Special Problems				
HEA	113	Health and Safety for							(or EDU electives)	2	0	0	2
		Young Children	3	2	0	4	EDU		Parent Education	3	0	0	3
SCI	101	General Science	3	0	0	3	EDU	211	Early Childhood				
			12	2	10	14			Internship	4	0	20	6
FC	UI	RTH QUAR	TI	T.	2		EDU	271	Child Care				
EDU	104	Art for Young Children	3	0	0	3			Administration	<u>3</u> 12	0	0	3
		OR	OR							12	0	$\overline{20}$	14
ENG	116	Child Care Credential II	[3	0	0	3			CTIVES				
EDU	108	Social Studies in					EDU	230					
		Early Childhood	3	0	0	3			Childhood: Discipline	1	0	0	1
EDU	110	Instructional Media and					EDU	232	Programming for Infants	:			
		Resources	2	0	3	3			A Guide to Very Early				
EDU	112	Language Arts in Early							Childhood Education	1	0	0	1
		Childhood	3	0	0	3	EDU	233	Issues in Early Childhoo				
		OR	OR						Infant Feeding	1	0	0	1
ENG	115	Child Care Credential I	3	0	0	3	EDU	234					
ENG	207	Educational Report							Child Abuse and Neglect		0	0	1
		Writing	3	0	0	3	EDU	235	Issues in Early Childhoo	d:			
			14	0	<u>0</u> 3	15			School Age Child Care	1	0	0	1

LDC	105	Triusic and Creative					
		Movement for					
		Young Children	3	0	0	3	
EDU	106	Activities for Young Cl					
		Science and Math	5	0	10	6	
	116	Children's Literature	3	0	0	3	
SOC	103	Sociology	3	0	0	<u>3</u>	
			14	0	10	15	
		H QUARTE	ER				
EDU	109	Physical Activities:					
		Games for Young					
		Children	1	2	0	2	
EDU	202	Curriculum Developme	nt				
		and Planning	4	0	10	5	
EDU	203	The Exceptional Child	3	0	0	3	
SOC	105	Families in the					
		American Culture	3	0	0	<u>3</u>	
			11		10		
SE	VE	ENTH QUA	RT	TE	R		
EDU		Special Problems					
		(or EDU electives)	2	0	0	2	
EDU	204	Parent Education	3	0	0	3	
EDU	211	Early Childhood					
		Internship	4	0	20	6	
EDU	271	Child Care					
		Administration	3	0		3	
			12	0	20	14	
EL	EC	CTIVES					
EDU	230	Issues in Early					
		Childhood: Discipline	1	0	0	1	
EDU	232	Programming for Infan	ts:				
		A Guide to Very Early					
		Childhood Education	1	0	0	1	
EDU	233	Issues in Early Childho	od:				
		Infant Feeding	1	0	0	1	
EDU	234	Issues in Early Childho	od:				
		Child Abuse and Negle		0	0	1	
EDU	235	Issues in Early Childho					
		School Age Child Care		0	0	1	
Y 11		at the second and a second and a second			Lanta	- dam	į

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

ELECTRONICS ENGINEERING TECHNOLOGY T-045

CURRICULUM DESCRIPTION:

The Electronics Engineering Technology curriculum provides a basic background in electronics-related theory, with practical applications of electronics for business and industry. Courses are designed to develop competent electronics technicians who may work as assistants to engineers or as liaisons between

engineers and skilled craftspersons.

The electronics technician will start in one or more of the following areas: research, design, development, production, maintenance, or sales. The graduate may begin as an electronics technician, an engineering aide, laboratory technician, supervisor, or equipment specialist.

JOB OPPORTUNITIES:

Electronics Technician Electrical Tester Electronics Engineering Technician Electronics Mechanic Electronics Sales and Service Technician

ELN 210 Linear Integrated Circuits 5 2 MAT 201 Technical Mathematics IV 5 0 PHY 112 Physics - Materials

and Heat

CURRICULUM BY OUARTERS: (122 Total Credit Hours)

Cours	se Titl	e I	lours	s Per	r W	eek	Cour	se Titl	e	Hours	Pe	r W	eek
			C	L	P	QH				C	L	P	OH
FII	RS	FQUARTEI	R			•	FI		H QUARTE	R			•
CET	105	Computer Tools for					ELN	219	Digital Fundamentals	5	0	6	7
		Engineering Technology	I 0	0	3	1	ELN	235	Industrial Electronics I	5	0	6	7
ELC	101	Fundamentals of					ENG	103	Technical Report Writin	g 3	0	0	3
		Electricity I	5	0	6	7			*	13	0	12	
ENG	100	Oral Communication	3	0	0	3	SI	XT:	H QUARTE	R			
MAT	101	Technical Mathematics I	5	0	0	<u>5</u>	ELN	236	Industrial Electronics II	4	0	6	6
			13	0	9	16	ELN	247	Electronic Systems:				
		OND QUART	NE.	R					Computers	4	0	6	6
CET	106	Computer Tools for					PSY	101	Psychology	<u>3</u>	0	0	3
		Engineering Technology	0 11	0	3	1	1			11	0	12	15
ELC	102	Fundamentals of					SE	VE	NTH QUAI	XTI		R	
		Electricity II	5	0	6	7	ENG	115	Appreciation of Literatu	re 3	0	0	3
ENG	101	Introduction to					ELN	250	Networking Personal				
		Written Communication		0	0	3			Computers	4	0	6	6
MAT	102	Technical Mathematics I	_	0	0		ELN	248			0	6	7
			13	0	9	16	PHY	114	Physics - Light and Sou	$\frac{3}{2}$	2	0	4
		D QUARTE								15	2	12	20
ELN		Transistor Applications	5	2	6	8							
ENG	102	Composition	3	0	0	3			the required curriculum co				
MAT		Technical Mathematics I		0	0	5			ired to complete an addition				
PHY	111	Physics - Mechanics	3		0	4			m of one (1) credit hour in				
710			16	4	6	20			ee. This course will be				
FO	U	RTH QUART	unrest	ricted	elective and must be chose	n fron	a di	scip	lines				

unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

ELECTRONICS ENGINEERING TECHNOLOGY T-045 Evening Curriculum

CURRICULUM DESCRIPTION:

The Electronics Engineering Technology curriculum provides a basic background in electronics-related theory, with practical applications of electronics for business and industry. Courses are designed to develop competent electronics technicians who may work as assistants to engineers or as liaisons between engineers and

skilled craftspersons.

The electronics technician will start in one or more of the following areas: research, design, development, production, maintenance, or sales. The graduate may begin as an electronics technician, an engineering aide, laboratory technician, supervisor, or equipment specialist.

JOB OPPORTUNITIES:

Electronics Technician Electrical Tester

Electronics Engineering Technician

Electronics Mechanic

Electronics Sales and Service Technician

Communication

Heat

PHY 112

Physics - Materials and

CURRICULUM BY OUARTERS: (122 Total Credit Hours)

Cours	e Titl	e Ho	urs C	Per		eek OH	Cours	se Titl	le
TETT	28	T QUARTER		L	r	пy	SE	VE	NT
CET		Computer Tools for					ELN	219	Digital
CLI	105	Engineering Technology I	0	0	3	1	PHY	114	Physic
ELC	101	Fundamentals of		_	_	-			,
		Electricity I	5	0	6	7	EI	GH	TH
MAT	101	Technical Mathematics I	5	0	09	<u>5</u> 13	ELN	247	Electro
			10	0	9	13			Compi
SE	CC	OND QUART	E	R			ENG	102	Compo
CET	106	Computer Tools for							
		Engineering Technology I	I 0	0	3	1			H Q
ELC	102	Fundamentals of					ELN	248	Microp
		Electricity II	5	0	6	7			Interfa
MAT	102	Technical Mathematics II	5	0	09	<u>5</u>	ENG	103	Techni
			10	0	9	13	PSY	101	Psycho
		D QUARTE		_		_			
ELN	110	Transistor Applications	5	2	6	8			CH (
MAT	103	Technical Mathematics III		0	0	5	ELN	250	Netwo
-	. TOUR THE THE	DELL OF A DE	10	2	0	13	ENIC	115	Comp
		RTH QUART			6	0	ENG	115	Appre
ELN MAT	210	Linear Integrated Circuits Technical Mathematics IV		2	6 0	8 <u>5</u>			
MAI	201	Technical Mathematics IV	10	2	6	13	In add	ition to	the requ
	777	H QUARTE	~ ~		U	13			ired to co
ELN	235	Industrial Electronics I	5	0	6	7			m of one
	100	Oral Communication	3	0	0	3			ree. Th
PHY	111	Physics - Mechanics	3	2	0	4			elective
	111	r ity sies ivicendines	11	2	6	14			student's
SIZ	T	H OUARTE							
ELN	236	Industrial Electronics II	4	0	6	6			
ENG	101	Introduction to Written							
		and the same of th		-		-			

Course Title	1100131	CI VV	VICCE		
	C	L P	QH		
SEVENTH Q	UARTE	CR			
ELN 219 Digital Fundan	nentals 5	0 6	7		
PHY 114 Physics - Light	and Sound 3	2 0	4		
	8	2 6	11		
EIGHTH QU	ARTER	Ł			
ELN 247 Electronic Syst	ems:				
Computers	4	0 6	6		
ENG 102 Composition	<u>3</u> 7	0 0	3		
*	7	0 6	9		
NINTH QUA	RTER				
ELN 248 Microprocesso	r				
Interfacing		0 6	7		
ENG 103 Technical Repo	ort Writing 3	0 0	3 <u>3</u>		
PSY 101 Psychology	3	0 0	3		
	11	0 6	13		
TENTH QUA	RTER				
ELN 250 Networking Pe	rsonal				
Computers	4	0 6	6		
ENG 115 Appreciation of	f Literature 3	0 0	<u>3</u>		

Hours Per Week

7 0 6 9

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

0

0

HORTICULTURE TECHNOLOGY T-009

CURRICULUM DESCRIPTION:

The Horticulture Technology curriculum encompasses the study and practical application of a variety of subjects in the field of horticulture. The curriculum consists of identifying and selecting plant materials; propagating, planting, and growing plants; designing basic landscapes and planting materials at the appropriate places and in the correct manner; properly maintaining plant materials; and managing the nursery, greenhouse, and garden center. In addition, skills are developed in designing and building planters,

walks, patios, fences and other landscape features. The curriculum is designed to provide students with the knowledge, skills, and attitudes that are necessary for independent, creative thinking essential to success in this field.

Various types of employers hire the graduates of this curriculum. Examples are nurseries, greenhouse operations, garden centers, landscape contractors, landscape maintenance companies, and municipal governmental agencies.

JOB OPPORTUNITIES:

Entry Level Landscape Worker Nursery Worker Plant Propagator Tree Pruner Groundskeeper Greenhouse Worker Salesperson, Horticultural and Nursery Products Landscape Construction Worker Garden Center Worker Lawn-Service Worker

240

HOR 256

Landscape Construction I

 $\frac{2}{13} \frac{4}{12}$

Nursery Management I

Advanced Level Horticulture - Specialty Grower, Field Horticulture - Specialty Grower, Inside Landscape Gardener Nursery Management Greenhouse Superintendent Landscape Drafter

CURRICULUM BY OUARTERS: (117 Total Credit Hours)

Cours	o Titl			. D.	. 11	Veek	C The Court Hours)	
Cours	se IIII	c n					Course Title Hours Per We	
TOTAL	Der	T OIL A DEET	C	L	r	QH		QH
		T QUARTER		_			FIFTH QUARTER	
ENG	100	Oral Communication	3	0	0	3		3
HOR	150	Interior Plant	3	0	0	3		5
HOR	170	Plant Science	4	2	0	5	HOR 251 Landscape Design I 3 4 0	5
HOR	185	Soil Science and Fertilize	r <u>5</u>	2	0	<u>6</u>	HOR 258 Turf Practices <u>3 2 0</u>	4
			15	4	0	17	13 8 0 1	
		OND QUART	E	R			SIXTH QUARTER	
ENG	101	Introduction to			HOR 252 Landscape Design II 3 4 0	5		
		Written Communication	3	0	0	3		4
ENG	115	Appreciation of Literature	3	0	0	3	MAT 119 Principles of Mathematics 5 0 0	5
HOR	153	Greenhouse Management	3	2	0	4	Elective 3 0 0	3
HOR	254	Plant Propagation	3	2	0	4	13 8 0 1	7
PSY	101	Psychology	3	0	0	3	SEVENTH QUARTER	
			15	4	0	17	770D 000 D 1	3
TH	IIR	D QUARTE	R					5
	102	Composition	3	0	0	3	HOR 220 Vegetable and	,
HOR	140	Home Maintenance	2	4	0	4	0	A
HOR	151	Plant Indentification I	3	4	0	5	Flower Gardening 4 0 0 9 0 30 1	2
HOR	180	Bedding Plant Production	2	2	0	3	9 0 30 1.	_
HOR	201	Agriculture Chemicals	3	0	0	3	In addition to the required curriculum courses, each	1
	201	rigizeateare Chemicals	13	10	0	18		
FO	TIE	RTH QUART			U	10	student will be required to complete an additional one (1)	
HOR		Entomology and Patholog		2	0	5	course for a minimum of one (1) credit hour in order t	
HOR	152	Plant Indentification II	y 4 3	4		5	receive the A.A.S. degree. This course will be designate	
TION	102	rant indentification if	3	4	0)	as an unrestricted elective and must be chosen from	n

as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

LAW ENFORCEMENT TECHNOLOGY T-064

CURRICULUM DESCRIPTION:

The Law Enforcement Technology curriculum prepares individuals for a career in the law enforcement services occupations field and other allied occupations. Law enforcement occupations require a thorough understanding of criminal behavior, criminal investigation, interpersonal communications, law, patrol operations, psychology, sociology, traffic

management and other aspects of law enforcement administration and operations.

Job opportunities are available with federal, state, county, and municipal governments. In addition, knowledge, skills, and abilities acquired in this course of study qualify one for job opportunities with private enterprise in such areas as industrial, retail, and private security.

JOB OPPORTUNITIES:

Alcohol Enforcement Officer College or University Officer Correctional Officer Correctional Programs Assistant Deputy Sheriff Industrial Security Officer Investigator
Highway Patrolman
Police Officer
Park Security Officer
Private Security Officer
Retail Security Officer
Wildlife Enforcement Officer

CURRICULUM BY QUARTERS: (120 Total Credit Hours) Course Title Hours Per Week Course Title Hours Per Week

Course line Hours Let Week											
			C	L	P	QH					
FII	RS	T QUARTEI	₹.								
CJC	101	Introduction to									
		Criminal Justice	5	0	0	5					
CJC	102	Criminology	5	0	0	5					
ENG	100	Oral Communication	3	0	0	3					
SOC	102	General Sociology	5	0	0	<u>5</u>					
			18	0	0	18					
SE	CC	OND QUART	E	CR							
CJC	103	GovernmentNational	5	0	0	5					
CJC	220	Criminal Justice									
		Organization and									
		Administration	5	0	0	5					
ENG	101	Introduction to									
		Written Communication	3	0	0	3					
EDP	102	Microcomputer Concepts	3	0	0	3					
		A A	16	0	0	16					
TH	HR	D QUARTE	R								
BIO		General Biology I	3	2	0	4					
CJC	104	GovernmentState									
		and Local	5	0	0	5					
CJC	120	Administration of Justice	4	0	0	4					
CJC	213	Criminal Evidence	3	0	0	3					
ENG	102	Composition	3	0	0	3					
		•	18	2	0	19					
FO	UI	RTH QUART	CI	Z I	\$						
BIO	102		3	2	0	4					
CJC	110	7	5	0	0	5					
CJC	121	Criminal Justice	_	_	^	_					
CJC	122	Seminar Criminal Justice	5	0	0	5					
CIC	122	Practicum	0	0	10	1					
			13	2	10	15					
			13		10	10					

Cours	oc 11t	ic Hours I ci vi	ccn			
	C	L	P	QH		
FII	FT	H QUARTE	R			
CJC	115	Criminal Law I	5	0	0	5
CJC	117	Constitutional Law	3	0	0	3
ENG	103	Technical Report Writin	ng 3	0	0	3
MAT	115	Fundamental Concepts				
		of Algebra	3	0	0	3
PSY	102	General Psychology	5	0	0	5
			19	0	0	19
SI	KT	H QUARTE	R			
CJC	105	Intro. to Corrections	5	0	0	5
CJC	210	Criminalistics I	3	2	0	4
CJC	260	Ethics in Criminal Justie	ce3	0	0	3
SOC	211	Victimology	3	0	0	3
			14	2	0	15
SE	VE	ENTH QUAI				
CJC	211	Criminalistics II	3	2	0	4
ENG	115		e 3	0	0	3
MAT	116					
		of Statistics	5	0	0	5
PSY	108	Abnormal Psychology	5	$\frac{0}{2}$	0	5
			16	2	0	17

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

MANUFACTURING ENGINEERING TECHNOLOGY T-050

CURRICULUM DESCRIPTION:

The primary objective of the Manufacturing Engineering Technology curriculum is the training of personnel to assist the engineer or small industry in planning, tooling, operating, servicing, and supervising manufacturing operations. This curriculum provides a basic background of mechanical and related theory, with specific skills in the use of manufacturing and testing equipment. Students are given experiences in operating and

servicing machines, accompanied by general education and management courses.

A graduate of this program may qualify for an entry position in one of several manufacturing functions: methods, analysis, production scheduling, quality control, materials testing, plant layout, time study, machine tooling, maintenance, and equipment and instrument work.

JOB OPPORTUNITIES:

Mechanical Engineering Technician Mechanical Technician Tool Planner Industrial Engineering Technician Quality Control Technician Material Scheduler Tool Designer Apprentice Automated Equipment Engineering Technician Numerical Control Tool Programmer

Manufacturing

Ferrous Metallurgy

MEC 210 Ferrous Meta MEC 235 Fluid Power

CHIPDICHH HIM DV

CU	JK	RICULUM	Ŀ	3)	Ľ	Qι	JAF	RI.	ERS: (120 Total Cr	edit F	lour	s)	
Cours	e Titl	e H	ours	s Pe	r W	eek	Cours	e Titl	e]	Hours	Per	·w	eek
			C	L	P	QH				C	L	P	QH
FII	RS.	FQUARTER	2				FII		H QUARTE	R			-
CAD	151	Computer Graphics	2	2	0	3	CHM	101	Chemistry	4	2	0	5
CET	105	Computer Tools for Engin	eeri	ng			MEC	202	Manufacturing				
		Technology I	0	0	3	1			Processes II	2	0	6	4
DFT	101	Technical Drafting I	1	0	3	2	MEC	205	Strength of Materials	3 3 12	2 2	0	4
ENG	101	Introduction to					PHY	113	Physics - Electricity	3	2	0	4
		Written Communication	3	0	0	3				12	6	6	17
MAT	101	Technical Mathematics I	5	0	0	5	SIX	KT:	H QUARTE	R			
MEC	101	Machine Processes I	1	0	6	3	ENG	100	Oral Communication	3	0	0	3
			12	2	12	17	ISC	202	Quality Control	3	2	0	4
SE	CC	ND QUART	E	R			ISC	203	Motion and Time Study		2	0	4
DFT	102	Technical Drafting II	1	0	3	2	MEC	237	Control Systems	3	2	0	4
ENG	102	Composition	3	0	0	3	PSY	101	Psychology	3	0	0	3
MAT	102	Technical Mathematics II	5	0	0	5				15	6	0	18
MEC	102	Machine Processes II	1	0	6	3		VE	NTH QUAR	ET!	ĐI	2	
PHY	111	Physics - Mechanics	3	2	0	4		115	Appreciation of Literatur	re 3	0	0	3
			13	2	9	17	ISC	209	Plant Layout	3	2	0	4
		D QUARTE					ISC	212	Engineering Economic				
CET	106	Computer Tools for Engin	eeri	ng					Analysis	2	2	0	3
_		Technology II	0	0	3	1		203	Welding Processes	2	0	3	3
ENG	103	Technical Report Writing		0	0	3	MEC	240	Introduction to Robotics				
MAT	103	Technical Mathematics III		0	0	5			and CIM	3	2	0	4
MEC	201	Manufacturing Processes I	. 1	0	6	3				13	6	3	17
PHY	112	Physics - Materials and											
		Heat	3	2	<u>0</u> 9	4	In addi	tion to	the required curriculum co	urses,	each	stu	dent
			12	2	9	16	will be	requi	red to complete an additio	nal or	ie (1) co	urse
FO	UF	RTH QUART					for a m	inimu	m of one (1) credit hour in o	order t	orec	eiv	e the
MEC		Applied Mechanics	5	0	0	5			ee. This course will be				
MEC	180	Programming for					unresti	icted	elective and must be chose	n fron	n dis	cipl	ines

3 0 3

<u>3</u> <u>0</u>

3 0 3 4 $\frac{3}{9} \frac{4}{17}$

4

unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

MARKETING AND RETAILING T-020

CURRICULUM DESCRIPTION:

The Marketing and Retailing curriculum is designed to prepare the individual for positions in various marketing and retailing businesses and industries. This purpose will be fulfilled through study and application in areas such as marketing and merchandising techniques, management, selling, advertising, retailing and credit and

collection procedures.

Through knowledge and skills, the individual will be able to perform marketing and distribution activities and, through the development of personal competencies and qualities, will be provided the opportunity to enter an array of marketing and distribution jobs.

JOB OPPORTUNITES:

Entry Level
Display Person
General Salesperson
Assistant Buyer

Trainee Manager

Advanced Level
Display Manager
Store Manager
Buyer

Department Manager

CURRICULUM BY QUARTERS: (112 Total Credit Hours)

 $1\overline{3}$ $\overline{2}$ $\overline{3}$ $1\overline{5}$

CU	JR	RICULUM	B	Y		Q	UAI
Cours	e Title	H	ours	Per	W	/eek	Cour
			C	L	P	QH	
FII	RS.	F QUARTER	2				FI
BUS	100	Basic Keyboarding	3	0	0	3	BUS
BUS	115	Business Law I	3	0	0	3	BUS
ENG	100	Oral Communication	3	0	0		BUS
MAT	119	Principles of Mathematics		0	0	5	
			14	0	0	14	ECO
		ND QUART					ENG
BUS	109	Business Mathematics	5	0	0	5	
BUS	116	Business Law II	3	0	0	3	SI
BUS	232	Sales Development	3	0	0		AIB
BUS	263	Retailing I	3	0	0	3	BUS
ENG	101	Introduction to					
		Written Communication	3	0	0	<u>3</u>	ECO
			17	0	0	17	EDP
TH		D QUARTE					
BUS	264	Retailing II	3	0	0	3	SE
BUS	272	Principles of Supervision	3	0	0	3	BUS
EDP	103	Introduction to					
		Microcomputing DOS	3	0	0	3	BUS
ENG	102	Composition	3	0	0	3	BUS
PSY	101	Psychology	3	0	0	3	BUS
			15	0	0	15	
		RTH QUART					
BUS	120	Accounting I	4	0	3	5	In add
EDP	101	Principles of Business					will b
		Data Processing	3	2	0	4	for a r
ENG	115	Appreciation of Literature	: 3	0	0	3	A.A.S
EDP	104	Text Processing					unres
		Applications I	3	0	0	3	outsic

J	JARTERS: (112 Total Credit Hours)										
	Cours	e Title	Н	ours	Per	·w	eek				
				C	L	P	QH				
	FII		H QUARTEI	2							
	BUS	234	Sales Management	3	0	0	3				
	BUS	239	Marketing	5	0	0	5				
	BUS	245	Advertising Using								
			Desktop Graphics	3	2	0	4				
	ECO	102	Economics I	3	0	0	3				
	ENG	205	Report Writing	3	0	0	3				
				17	2	0	18				
	SI		H QUARTE								
	AIB	209	Installment Credit	4	0	0	4				
	BUS	128	Personal Financial								
			Management	5	0	0	5				
	ECO	104	Economics II	3	0	0	3				
	EDP	156	Microcomputer Graphics	3	0	0	<u>3</u>				
				15	0	0	15				
			NTH QUAR			₹					
	BUS	131	Human Relations Skills								
			in Organizations	3	0	0	3				
	BUS	242	Visual Merchandising	3	2	0	4				
	BUS		Electives	6	0	0	6				
	BUS	262	Fashion Merchandising	3	2	0	4				
				15	4	0	17				

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

MEDICAL SONOGRAPHY T-180

CURRICULUM DESCRIPTION:

The Medical Sonography curriculum offers education options of a one-year diploma program for two-year allied health occupations as recognized by the American Medical Association (AMA) or a two-year associate in applied science degree (A.A.S.) program for high school graduates. The curriculum provides for knowledge and clinical skills in the application of high frequency sound waves to image internal body structures. Physics, cross-sectional anatomy, abdominal. gynecological, obstetrical, breast, and thyroid sonography are emphasized. Competency in the identification of normal anatomy, sonic physics, stages of fetal development, and use of equipment in each procedure as well as effective

communication skills are necessary to obtain high quality sonograms to assist in recognizing abnormalities and in making diagnoses.

Graduates of the diploma program option are eligible to apply to the American Registry of Diagnostic Medical Sonographers for examinations in physics, abdomen, obstetrics, and gynecology. Graduates from an AMA approved associate degree program are eligible to apply for these examinations upon graduation.

Graduates may be employed as staff and department heads in clinics, private doctors' offices, hospitals, and as instructors in colleges and universities.

JOB OPPORTUNITIES:

Instructors

ENG 115

SON 256 Practicum I

SON 132 Appreciation of Literature 3

Sectional Anatomy

0 0 3

3 0 0

15 8 15 17

Staff Medical Sonographer Staff Ultrasound Sonographer

CI	TIR	RICULUM	F	2 7	7	OI	TAR	· T	IF. IR • (138 Total Credit	Hou	re)		
	se Title					eek	Cours			ours		r W	eek
Cours	oc 11th	t II	C	L	P P	QH	Cours	. 1161			L		QH
TETO	RS	Γ QUARTER		1.7	1	VII	FIF	ויודיה	H OUARTEI		L		VII
BIO	107	Anatomy and Physiology		2	0	4		133	Sonographic Anatomy I	4	0	0	4
BIO	115	Medical Terminology I	1	0	0	1	SON	153	Scanning Techniques	4	4	0	6
BIO	116	Medical Terminology II	1	0	0	1	SON	266	Practicum II	Ò	0	24	8
MAT	101	Technical Mathematics I	5	0	0	5	5011	200	11000000111111	8	4	24	18
RDT	113	Departmental Orientation	J	U	U	5	SIX	7	H QUARTE		-7	21	10
ICD I	113	and Medical Ethics					SON	134	Sonographic Anatomy II	4	0	0	4
		and Law	2	2	0	3	SON	250	Sonographic Pathology I	4	0	0	4
SON	100	Orientation to Sonography		0	0	2	SON	259	Introduction to Case Studies		0	0	3
DOI	100	0 1 2	14	4	0	16	SON	276	Practicum III	0	0	24	8
SE	CC	ND QUART	~ .		U	10	5011	210	Tracticum III	11	0	24	19
BIO	108	Anatomy and Physiology		2	0	4	SE	VE	NTH QUAR				17
ENG	100	Oral Communication	3	0	0	3		240	Embryology and Fetal				
PSY	101	Psychology	3	0	0	3	5011	2-10	Development	4	0	0	4
RDT	112	Introduction to Patient	3	U	U	5	SON	251	Sonographic Pathology II		0	0	4
KDI	112	Care Techniques	2	0	0	2	SON	260	Case Studies I	2	0	0	2
SON	111	Medical Sonography	2	U	U	2	SON	286	Practicum IV	0	0	24	8
5014	111	Physics I	3	0	0	3	DOI	2,00	Tracticum 1 v	10	ŏ	24	18
			14	2	0	15	EIC	3H	TH OUART		-	21	10
TH	ITR	D QUARTE			U	15	SON	261	Case Studies II	2	0	0	2
BIO	169	Fundamentals of					SON	270	Sonographic Seminars	5	0	0	5
DIO	107	Disease Processes	4	0	0	4		271	Introduction to Vascular	~		·	
ENG	101	Introduction to		0	0	-4	0011		and Cardiac Sonography	3	0	. 0	3
1110	101	Written Communication	3	0	0	3	SON	296	Practicum V	0	0	24	8
PSY	111	Abnormal Behavior	3	0	0	3	0011		1100000000	10	ŏ	24	18
SOC	103	Sociology	3	0	0	3				10	0	21	10
SON	121	Medical Sonography	5	U	U	5	In addi	tion to	the required curriculum cou	rses	eac	h str	ident
5011	1201	Physics II	3	0	0	3			ired to complete an addition				
		·	16	0	0	16			im of one (1) credit hour in or				
FO	TIE	RTH QUART			0	10			ree. This course will be				
EDP	102		3	0	0	3			elective and must be chosen				
777.70	100	interocomputer concepts	3	U	U	3	uillesu	icicu	ciccure and must be chosen	1101	ıı uı	seip.	111163

unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

MICROCOMPUTER SYSTEMS TECHNOLOGY T-192

CURRICULUM DESCRIPTION:

The purpose of the Microcomputer Systems Technology curriculum is to prepare graduates for employment with business, industry, and government organizations that use or are planning to use computers to process and manage information.

Using microcomputers or other small computer systems, students will learn to apply a

variety of commonly used business applications and systems software; set up microcomputer hardware and install software; develop user training programs and user documentation; evaluate and recommend hardware and software; assist users in resolving hardware and software problems, and develop control and security procedures. Students will also learn the fundamentals of microcomputer networking.

JOB OPPORTUNITIES:

Entry Level

Technical Support Specialist Microcomputer Coordinator

Network Coordinator

Information Systems Specialist Microcomputer Specialist

Microcomputer Salesperson

PC Support Specialist Computer Support Rep.

Advanced Level

Microcomputer Consultant
Office Systems Analyst
Information Center Manager
Microcomputer Systems Analyst

CURRICULUM BY QUARTER: (118 Total Credit Hours)

CU	JR	RICULUM	E	3 Y	- ,	Qt	JA
Cours	e Title	Ho	ours	Per	W	eek	(
			C	Ŀ	P	QH	
FII	RSI	FQUARTER]
BUS	100	Basic Keyboarding	3	0	0	3]
EDP	102	Microcomputer Concepts	3	0	0	3	
ENG	101	Introduction to Written]
		Communication	3	0	0	3	
MAT	119	Principles of Mathematics	5	0	0	5]
PSY	101	Psychology	3	0	0	3]
		, 0,	17	0	0	17	
SE	CO	ND QUART	D	R			
BUS	120	Accounting I	4	0	3	5]
EDP	103	Introduction to]
		Microcomputing DOS	3	0	0	3	
EDP	104	Text Processing					
		Applications I	3	0	0	3]
ENG	102	Composition	3	0	0	3]
MAT	117	EDP Mathematics	5	0	0	5]
			18	0	<u>0</u> 3	19	
TH	IR	D QUARTEI	R]
BUS	280	Micro. Accounting Applica	atio	ns:			1
		General Ledger	3	0	0	3	
EDP	114	Text Processing]
		Applications II	3	0	0	3	
EDP	151	Operating Systems II	3	0	0	3	5
EDP	154	Micro. Communications	3	0	0	3]
EDP	171	Alternative Operating					
		Environment I	3	0	0	3]
		General Elective	1	0	0	1	1
			16	0	0	16	
FO	UF	RTH QUART	E	R			
BUS	281	Micro. Accounting Applica	atio	ns:			
		Accounts Rec./Accounts Pay.	3	0	0	3]
EDP	150	Data Base Management					1
		Systems I	3	0	0	3	f
EDP	152	Financial Spreadsheet					1
		Operating Î	3	0	0	3	ι
EDP	164	Networking I	3	0	0	3	(
EDP	281	Operating Systems III	3	0	0	3 <u>3</u>	
EDP		Elective	3	0	0	3	

Cours	e Title	e I	Hours	Pe	r W	eek
			C	L	P	QH
FII		H QUARTE				-
BUS	282	Micro. Accounting Appl	icatio	ns:		
		Payroll/Inventory	3	0	0	3
EDP	162	Financial Spreadsheets				
		Operating II	3	0	0	3
EDP	173	Desktop Publishing Concept	s I 3	0	0	3
EDP	250	Introduction to Data Bas	e			
		Management Systems				
		Programming	3	0	0	3
EDP	264	Networking II	3	0	0	3
ENG	103	Technical Report Writing	g 3	0	0	3 <u>3</u>
		*	18	0	0	18
SIX	XTI	H QUARTE	R			
ENG	100	Oral Communication	3	0	0	3
EDP	156	Microcomputer Graphics	s I 3	0	0	3
EDP	262	Data Base Management				
		Systems Programming II	3	0	0	3
EDP	275	Hardware/Software Suppor	t 3	0	0	3
EDP	283	Multimedia/Presentation				
		Graphics	3	0	0	3
EDP		Elective	3	0	0	3
			18	0	0	18
SE	VE	NTH QUAR	TI	D)	₹.	
EDP	289	Microcomputing Project	1	4	0	3
EDP	284	LAN Administration	3	0	0	3
EDP		Elective	3	0	0	3 3 3
ENG	115	Appreciation of Literatur	re 3	0	0	3
		* *	10	A	$\overline{\cap}$	12

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

18 0 0 18

NUCLEAR MEDICINE TECHNOLOGY T-104

CURRICULUM DESCRIPTION:

Nuclear medicine is a health technology which utilizes the internal administration of radioactive materials. The field is primarily diagnostic, although some therapeutic procedures are performed. The nuclear medicine technologist works under the direction of a physician who is licensed for the use of radioactive materials.

The Nuclear Medicine Technology curriculum prepares students to perform as clinical nuclear medicine technologists. The emphasis of the program is on the development of the skills needed by the clinical technologist. These skills include patient care, utilization of radioactive materials, operation of specialized imaging and counting instrumentation, and performance of laboratory procedures. In

addition to the development of these skills, the students receive instruction relating to the theories and principles from which the clinical procedures are developed.

Graduates of the program are eligible to take either of the two national certification/registration examinations currently offered. These examinations are given by the Nuclear Medicine Technology Certification Board (NMTCB) and the American Registry of Radiologic Technologists (ARRT).

Individuals who wish to enter a program of Nuclear Medicine Technology should, if possible, complete high school courses in algebra, biology, chemistry, and physics prior to entry.

> ek OH

> > 2

4

7 2 3

5

7

2324

JOB OPPORTUNITIES:

Nuclear Medicine Technologist

NMT 213

Principles of

Nuclear Pharmacy

	_				
CHIDDICHI	TITE AT	D 37	OTTA	DTEDG-	(120 T-4-1 C

		RICULUN	1	В	X	Q	UAK	TERS: (138T	otal Cre	dit	Hot	ır
Cours	se Titl	le Ho				eek	Course Ti	tle	Hours	Pe	r W	er
			C	L	P	QH			C	L	P	(
	RS'	T QUARTE:	R				FIFT	H QUART	ER			
BIO	107	Anatomy and					NMT 111	Principles of Nuclear	r			
		Physiology I	3	2	0	4		Medicine I	2	0	0	
BIO	115	Medical Terminology I	1	0	0	1	NMT 202	(201, 203, or 204)				
CHM	103	Chemistry - General						Clinical Practice	0	0	21	
		and Inorganic	3	2	0	4	NMT 220	Instrumentation I	2	0	0	
MAT		Allied Health Math I	3	0	0	3	NMT 225	Computers in				
NMT	100	Intro. to Nuclear						Nuclear Medicine	3	0	0	
		Medicine Technology	1	2	3	3			7	0	21	1
PSY	101	Psychology	3	0	0	3		'H QUART	ER			
			14	6	3	18	NMT 203	(201, 202, or 204)				
		OND QUAR	T		R			Clinical Practice	0	0	21	
BIO	108	Anatomy and					NMT 221	Principles of Nuclear	ŗ			
		Physiology II	3	2	0	4		Medicine II	2	0	0	
BIO	116	Medical Terminology II	1	0	0	1	NMT 235	Instrumentation II	2	2	0	
	100	Oral Communication	3	0	0	3	NMT 251	Principles of In Vitro)			
MAT		Allied Health Math II	3	0	0	3		Nuclear Medicine I	2	2	0	
NMT		Nuclear Med. Tech. II	2	0	0	2			6		21	
NMT	119	Introduction to						ENTH QU.	ART		DI	₹
		Clinical Practice I	0	2	6	3	NMT 204	(201, 202, or 203)				
PHY	100	Introduction to Physics	<u>3</u>	0	0	3		Clinical Practice	0	0	21	
			15	4	6	19	NMT 231	Principles of Nuclear				
		D QUARTE	R					Medicine III	2	0	0	
ENG	101						NMT 245	Instrumentation III	2	2	0	
		Communication	3	0	0	3	NMT 289	Radiobiology	2	0	0	
MAT		Statistics	5	0	0	5			6		21	1
NMT			2	2	0	3		ITH QUAF		R		
NMT		Nuclear Physics	2	0	0	2	NMT 258	Principles of In Vitro				
NMT	124	Introduction to						Nuclear Medicine II	2	2	0	
DITT	100	Clinical Practice II	0	0	12	4	NMT 290	Nuclear Medicine				
PHY	102	Electricity and						Technology Seminar	2	0	0	
PSY	111	Electronics	3	0	0	3	NMT 292	Nuclear Medicine				
P5 1	111	Abnormal Behavior	3	0	0	3		Technology Review	2	0	0	
TO		APPER ATT -	18		12	23	NMT 300	Clinical Practice				
ENIC	115	RTH QUAR	LF		2			Review	0		15	
ENG	115	Appreciation of					SOC 103	Sociology	3 9	<u>0</u> 2	0	-
NIME	100	Literature	3	0	0	3			9	2	15	1:
NMT NMT		Nuclear Med. Tech. IV	3	0	0	3						
NMT		Health Physics	2	0	0	2		o the required curriculum				
INIVII	201	(202, 203, or 204)	0	0		_	will be requ	ired to complete an addit	tional or	ie (1) cc	ou
		Clinical Practice	0	0	21	7	I for a minimu	am of one (1) credit hour i	n order t	ore	ceiv	e 1

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

0 0

0 21 18

PARALEGAL TECHNOLOGY T-120

The Triad Regional Paralegal Technology Program is a cooperative educational program offered by Davidson County Community College at its own campus, Forsyth Technical Community College, Guilford Technical Community College, and Rockingham Community College. All courses required in the program are available on each local campus.

CURRICULUM DESCRIPTION:

The Paralegal Technology curriculum trains individuals in basic knowledge and applications of the law to work under the supervision of attorneys. The paralegal/legal assistant can support attorneys by performing routine legal tasks, and assisting with more complicated and difficult legal work. Training will include legal specialty courses such as legal research, real estate, litigation preparation, as well as general subjects such as English, oral communications, mathematics, and computer skills.

Graduates of the Paralegal Technology curriculum are trained to assist an attorney or group of attorneys in many areas of the law. A paralegal/legal assistant is not able to practice law, give legal advice, or represent clients in a court of law. However, paralegals/ legal assistants can represent clients in some administrative hearings. Paralegal graduates will be able to assist in work on probate matters, conduct investigations, search public records, serve and file legal documents, perform library research, ande provide office management. Employment opportunities and job descriptions vary greatly depending on whether a paralegal/legal assistant is hired by a private law firm, or a government agency, or a corporation such as a bank or insurance company.

JOB OPPORTUNITITES:

Paralegal Technician

Examples of employment opportunities for Paralegal Technician:

Public and private law firms

Legal department of government

Business and industry

Law-related jobs in insurance

Financial institutions
Corporations
Free lance opportunities

CU	JR:	RICULUM	1	\mathbf{B}	Y	- (Q
Cours	e Title		Ho	ırs	Per		
				C	L	P	QH
		Ç QUARTEI		_	0	_	_
*BUS	100	Basic Keyboarding		3	0	0	3
*BUS	115	Business Law I		_	0	0	_
*ENG	150	Freshman Composition I	[5	0	0	5
*LEG	115D	Paralegal in the					
		Legal System		3	0	0	3
*MAT	115	Fundamental Concepts					
		of Algebra		3	0	0	3 17
~~				7	0	0	17
		ND QUART				^	2
*BUS	116	Business Law II Taxes		3 2	0	0	3
* ENG	229 151	Freshman Composition I		5	0	0	3 5
LEG		Law Library Research at		J	U	U)
LLO	1320	Management Management		3	2	0	4
		Trianagement	- 1	3	2/2	3	15
TH	IR	D OUARTE			_		10
*EDP	103	Introduction to					
		Microcomputing DOS		3	0	0	3
*ENG	206	Communications		3	0	0	3
LEG	133D	Law Library Research ar					
		Management		2	0	0	2
LEG	135D	Legal Systems		4	0	0	4
		Social Science Elective	1	5	0	$\frac{0}{0}$	<u>5</u> 17
FO	VIII D	TH QUAR		7	0	U	1 /
BUS		Taxes for Paralegals		4	0	0	4
LEG		Evidence for Paralegals		4	0	0	4
LEG		Legal Systems		4	ő	0	4
LEG		Law Office Managemen	t	4	0	0	4
		Elective (Any three-hour					
		technical or general					
		education course)		3	Q	0	3
			1	9	0	0	19

JAI	RT	ERS: (119 Total	Credit	Н	ours)	
Cours	se Title		Hours	Pe	r W	eek
			C	L	P	QH
FII		I QUARTE	R			
CJC	210D	Investigative Procedures	s 5	0	0	5
LEG		Investigation of Civil				
		Claims	4	0	0	4
LEG	227D	Estate Management	4	0	0	4
LEG		Property Transactions	4	0	0	4
MED	110D	Medical Terminology ar	nd			
		Records	1	2	0	2
			18	2 2	0	19
SIX	KTI	H QUARTE	R			
LEG		Legal Software	1	4	0	3
		Law and The Family	3	0	0	3
LEG	228D	Estate Management		2	0	4
LEG		Litigation Preparation	3	0	0	4
LEG		Property Transactions	3	2	0	4
			14	<u>2</u> 8	0	$1\overline{8}$
SE	VE	NTH QUAI	RTI	ÐΙ	R	
*ENG		Oral Communication	3	0	0	3
LEG	214D	Domestic Law Documen	nts 2	0	0	2
LEG	230D	Bankruptcy and Collecti	ion			
		Process	4	0	0	4
LEG	261D	Clinical Practice	1	0	10	2
		OR	OR			
		Elective	1	0	10	2
LEG	280D	Business Organizations				
		Law	3	0	0	3
			13	0	$1\overline{0}$	14

*These are courses offered by Forsyth Technical Community College that will be accepted as substitute courses for the courses required by Davidson County Community College for graduation from the Paralegal Technology Program.

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

RADIATION THERAPY TECHNOLOGY T-221

CURRICULUM DESCRIPTION:

Radiation Therapy Technology is a health science which applies prescribed doses of ionizing radiation to specific areas of the patient's body for treatment of disease, primarily cancer. The technologist works in conjunction with the radiation therapy staff nurses, physicists and physicians. The technologist, through academic and clinical studies, is skilled in treatment management, administration of prescribed radiation therapy treatment, and provision of patient support.

Radiation therapy technologists find employment in radiation therapy facilities in hospitals and free-standing cancer treatment centers. Major responsibilities fall into the specialties of patient care, education, research, and treatment planning (dosimetry).

Graduates are eligible to take the national examination given by the American Registry of Radiologic Technologists for certification and registration in radiation therapy technology.

Individuals preparing for enrollment in the curriculum should consider completion of courses in biology, geometry, and algebra prior to entrance. Courses in chemistry and physics have also proven to be helpful.

JOB OPPORTUNITIES:

Radiation Therapy Technologist

CURRICULUM BY OUARTERS: (141 Total Credit Hours)

CU	CURRICULUM BY QUARTERS: (141 Total Credit Hours)													
Cours	se Titl	e H	our	s P	er W	Veek	Cour	se Titl	le	Hours	Per	r W	Week	
			C	L	P	QH				C	L	P	OH	
		T QUARTER	2				FI	FM N	H QUARTE	CR				
BIO	107	Anatomy and Physiology	I 3	2	0	4	SOC	103	Sociology	3	0	0	3	
BIO	115	Medical Terminology I	1	0	0	1	RTT	205	Radiation Therapy					
BIO	116	Medical Terminology II	1	0	0	1			Physics I	3	0	0	3	
EDP	102	Microcomputer Concepts	3	0	0	3	RTT	214	Orientation to					
ENG	100	Oral Communication	3	0	0	3			Radiation Therapy	3	2	12	8	
RDT	112	Introduction to Patient					RTT	221	Clinical Oncology I	3	0	0	3	
		Care Techniques	2	0	0	2				12	2	12	17	
RDT	113	Departmental Orientation					SI	XT	H QUARTE	ER				
		and Medical Ethics					PSY	115	Psychology of Helping					
		and Law	2	2	0	3			Relationships	3	0	0	3	
			15	4	0	17	RTT	206	Radiation Therapy					
SE	CC	ND QUART	E	R					Physics II	3	0	0	3	
BIO	108	Anatomy and					RTT	215	Radiobiology		0	0	3	
		Physiology II	3	2	0	4	RTT	222	Clinical Oncology II	3	0	0	3	
ENG	101	Introduction to					RTT	227	Radiation Therapy					
		Written Communication	3	0	0	3			Practicum I	0	2	15	6	
PSY	101	Psychology	3	0	0	3				12			18	
RDT	114	Basic Essentials of					SE	VE	ENTH QUA	RTF	3 I	2		
		Radiologic Technology	3	2	15	9	RTT	207	Dosimetry I		0	0	3	
			12			19	RTT	236	Radiation Therapy					
	IIR	D QUARTE	R						Procedures I	3	0	0	3	
BIO	169	Fundamentals of Disease					RTT	237	Radiation Therapy					
		Processes	4	0	0	4			Practicum II	0	2	21	8	
MAT	115	Fundamental Concepts								6	2	21	14	
		of Algebra	3	0	0	3	EI	GH	TH QUAR	TEF	2			
RDT	120	Radiation Physics	4	0	0	4	RTT	208	Dosimetry II	3	0	0	3	
RDT	137	Radiographic Technique I	3	2	0	4	RTT	246	Radiation Therapy					
RTT	130	Radiographic Imaging I	0	2	12	5			Procedures II	3	0	0	3	
			14	4	12	20	RTT	247	Radiation Therapy					
FO	UF	RTH QUART	Œ	R					Practicum III	0	2 :	21	8	
ENG	115	Appreciation of Literature	3	0	0	3	RDT	254	Departmental Administra	tion				
RDT	130	Radiation Biology and							and Quality Assurance		0	0	3	
		Protection	3	0	0	3				9	$\frac{0}{2}$	21	17	
RTT	131	Radiation Therapy												
		Positioning and Anatomy	4	0	0	4	In add	lition	to the required curricul	um cou	rse	s, e	ach	
RTT	132	Radiographic Imaging II	0	2	12	5	studen	t will l	be required to complete ar	additio	nal	one	(1)	
PSY	111	Abnormal Behavior	3	0	0	3			minimum of one (1) cred					

student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

13 2 12 18

RADIOLOGIC TECHNOLOGY T-061

CURRICULUM DESCRIPTION:

The Radiologic Technology curriculum prepares graduates to be competent Medical Radiographers. The radiographer is a skilled person qualified by technological education to provide patient services using imaging modalities (as directed by physicians qualified to order and/or perform radiologic procedures) by (1) applying knowledge of the principles of radiation protection for the patient, self, and others; (2) applying knowledge of anatomy, positioning, and radiographic techniques to accurately demonstrate anatomical structures on a radiograph; (3) determining exposure factors to achieve optimum radiographic technique with a minimum of radiation exposure to the patient; (4) examining radiographs for the purpose of evaluating technique, positioning, and other pertinent technical qualities: (5)

exercising discretion and judgment in the performance of medical imaging procedures; (6) providing patient care essential to radiologic procedures; and (7) recognizing emergency patient conditions and initiating life saving first aid.

Graduates may be employed in radiology departments in hospitals, clinics, physicians' offices, research and medical laboratories, federal

and state agencies, and industry.

Graduates are eligible to take the national examination given by the American Registry of Radiologic Technologists for certification and registration as medical radiographers.

Individuals desiring a career in radiologic technology should take courses in biology, algebra, and chemistry and/or physics prior to entering the program.

JARTERS: (142 Total Credit Hours)

JOB OPPORTUNITIES:

Radiologic Technologist

Radiographer

CI	UR	RICULUN	1 I	3	Y	O	τ
	se Tit		Hour				
			C	L	P	OH	
FI	RS	T QUARTE	R				
BIO	107	Anatomy and Physiology		2	0	4	
BIO	115	Medical Terminology I	1	0	0	1	
BIO	116	Medical Terminology II	1	0	0	1	
ENG	100	Oral Communication	3	0	0	3	
RDT	112	Introduction to Patient					
		Care Techniques	2	0	0	2	
RDT	113	Department Orientation					
		and Medical Ethics					
		and Law	2	2	0	3	
			12	4	0	14	
SE	CC	OND QUART	ΓE	R			
BIO	108	Anatomy and					
		Physiology II	3	2	0	4	
PSY	101	Psychology	3	0	0	3	
ENG	101	Introduction to					
		Written Communication	3	0	0	3	
RDT	114	Basic Essentials of					
		Radiologic Technology	3	2	15	9	
_			12	4	15	19	
		D QUARTE	R				
MAT	115	Fundamental Concepts					
		of Algebra	3	0	0	3	
RDT	120	Radiation Physics	4	0	0	4	
RDT	137	Radiographic Technique		2	0	4	
RDT	138	Practicum I	0	2	15	6	
RDT	139	Positioning and Related					
		Anatomy I	3	0	0	3	
-	_		13	4	15	20	
FO	UI	RTH QUART					
ENG	115	Appreciation of Literatur		0	0	3	
PSY	111	Abnormal Behavior	3	0	0	3	
RDT	130	Radiation Biology and					
DDm	4.40	Protection	3	0	0	3	
RDT	148	Practicum II	0	2	15	6	
RDT	149	Positioning and Related					
		Anatomy II	3	0	0	3	
			12	2.	15	18	

		1142 Total C				
Cour	se Tit	le]	Hour	s Pe	er W	
			C	L	P	QH
FI	FT	H QUARTE	R			
RDT	237	Radiographic Technique	II 3	0	0	3
RDT	248	Practicum III	0	2	21	8
RDT	261	Pediatric, Emergency, an	ıd			
		Operative Radiography	2	0	0	2
RDT	269	Positioning and Related			_	_
		Anatomy III	3	0	0	3
RDT	289	Film Critique I	2	0	0	2
			10	2	$2\overline{1}$	18
SI	XT	H QUARTE		_		
EDP	103					
		Microcomputing DOS	3	0	0	3
RDT	258	Practicum IV	0	2	21	8
RDT	279	Positioning and Related		_	-1	U
1001	-17	Anatomy IV	3	0	0	3
RDT	283	Radiographic Pathology	2	0	0	2
RDT	290	Film Critique II	2	0	0	2
I TOD I	270	i iiii ciitique ii	10	2	21	18
SE	VE	NTH QUAR				10
RDT	233	Seminar	2	0	0	2
RDT	250	Special Procedures I	3	0	0	3
RDT	268		0	2	21	8
RDT	291	Film Critique III	2	0	0	2
SOC	103	Sociology	3	0		3
300	103	Sociology	10	2	<u>0</u> 21	18
TETT	CH	TH QUART			21	10
RDT	252	Special Procedures II	3	0	0	3
RDT	254	Departmental	3	U	U	3
KDI	234	Administration and				
			2	0	0	2
DDT	270	Quality Assurance	3	0	0	3
RDT	278	Practicum VI	0	_	21	8
RDT	292	Film Critique IV	<u>2</u> 8	0	0	2
			8	2	21	16

In addition to the required curriculum courses, each student will be required to complete an additional one (1) course for a minimum of one (1) credit hour in order to receive the A.A.S. degree. This course will be designated as an unrestricted elective and must be chosen from disciplines outside the student's areas of specialization.

RESPIRATORY CARE TECHNOLOGY T-091

CURRICULUM DESCRIPTION:

Respiratory Care Technology offers career education for individuals interested in becoming respiratory therapy technicians or respiratory

therapists.

The respiratory therapist is qualified to assume primary responsibility for respiratory and cardiac care, including the supervision of technicians. The therapist makes patient care decisions concerning the use of life-support systems, oxygen therapy, and other breathing treatments. They also perform heart and lung studies. Graduates of the therapist program receive an associate degree.

The technician performs tasks which

include oxygen therapy, breathing treatments and equipment maintenance. Graduates of the technician program receive a diploma.

Graduates of accredited programs are eligible to apply for admission to the entrylevel examination. Graduates of an accredited therapist program are also eligible to take the advanced practitioner examinations. These examinations are given by the National Board for Respiratory Care.

Graduates may be employed in hospitals, clinics, nursing homes, education, industry, and

home care.

JOB OPPORTUNITIES:

Cardiopulmonary Surgery 1

ECG and Hemodynamic Monitoring

Cardiopulmonary Diseases

RTH 170

RTH 180

Respiratory Care Technician Respiratory Therapist

CURRICULUM BY QUARTERS: (127 Total Credit Hours) Course Title Hours Per Week Course Title Hours Per Week												
Cours	se Tit	le Ho	ours C	Pe L	r W P	eek OH	Course Title Hours Per Wee	H				
TETT	D C'	T OUARTE	_	L	r	ny	FIFTH QUARTER	**				
		Anatomy and Physiology I		2	0	4		3				
	141	Medical Vocabulary and		_		·	RTH 215 Ventilators 2 2 0 3	3				
200		Terminology	3	0	0	3	RTH 218 Clinical Experience IV 0 2 12	5				
MAT	113	Allied Health					RTH 220 Adult Critical Care 2 2 0 3	3				
		Mathematics I	3	0	0	3	RTH 268 Cardiopulmonary					
PHY	101	Concepts in Physics	3	0	0	3	Diagnostic Testing 1 2 0 2	2				
RTH	109	Respiratory Care I	0	6	0	3	8 8 12 16	5				
			12	8	0	16	SIXTH QUARTER					
		OND QUART	ΓE	CF	3		ENG 115 Appreciation of					
BIO	108	Anatomy and					Literature 3 0 0					
		Physiology II	3	2	0	4		3				
ENG	101	Introduction to					Title 220 Cilinothi Emperiori Con a	5				
		Written Communication	3	0	0	3	RTH 230 Perinatal and Pediatric					
MAT	114	Allied Health					Respiratory Care 3 2 0 4	1				
		Mathematics II	3	0	0	3	9 4 12 15)				
RTH		Clinical Experience I	0	2	6	3	SEVENTH QUARTER	_				
		Respiratory Care II	2	2	0	3		3				
RTH	149	Cardiopulmonary Anato		and				3				
		Physiology: Essentials		_	0		Terri 200 Cilinear Experience (1 0 = 12	9				
		Respiratory Care I	2	<u>0</u>	0	2 18	RTH 241 Respiratory Care Department Operations 1 0 0	1				
707 W 1		D OTIA DEE	13	_	0	18	Operations 1 0 0 1 RTH 275 Pulmonary Rehabilitation	1				
BIO		ED QUARTE Fundamentals of	. 14					2				
DIO	109	Disease Processes	4	0	0	4	and Home Care 2 0 0 2 9 2 12 14	2/				
RTH	112	Clinical Experience II	0	2	12	5	EIGHTH QUARTER	ı				
	129	Respiratory Care III	2	2	0	3	RTH 248 Clinical Experience VII 0 2 27 10	0				
RTH	150	Pharmacology	3	õ	0	3	RTH 255 Seminar 1 0 0					
RTH	159	Cardiopulmonary Anato	_	U	U	2		2				
10111	10)	and Physiology: Essent		for			3 2 27 13					
		Respiratory Care II	3	0	0	3	5 2 27 10					
		respiratory cure in	12		12		In addition to the required curriculum courses, each stude	eni				
FC	U	RTH OUAR				10	will be required to complete an additional one (1) cour					
EDP	103						for a minimum of one (1) credit hour in order to receive t					
		Microcomputing DOS	3	0	0	3	A.A.S. degree. This course will be designated as					
RTH	113	Clinical Experience III	0		12	5	unrestricted elective and must be chosen from disciplin					
RTH	160	Topics in General and					outside the student's areas of specialization.					

0 4

2 12 16



Program

The Pretechnical program provides students with an opportunity to build academic skills and acquire the background which should facilitate success in their desired curriculum program,

PRETECHNICAL PROGRAM T-099

The Pretechnical program provides students with an opportunity to build academic skills and acquire the background which should facilitate success in their desired curriculum program.

For applicants to a degree program who, on the basis of test results and past performance, do not qualify for immediate admission to their chosen program of study, noncredit developmental course work is available and may be required as a prerequisite for registration in specific credit courses. Students taking the required pretechnical work may also take specified courses within their desired curriculum.

Students may then transfer all applicable credit courses into their curriculum program when the criteria have been met and pretechnical and selected curriculum courses have been completed. All credit courses within the student's chosen curriculum will then be applied toward graduation.

Some developmental courses are also open to students who wish to take them for personal benefit.

This program offers a series of courses for preparation, remediation, and guidance for students who, for a variety of reasons, do not meet the specific entrance requirements for the regular curriculum programs of their choice. Students who do meet the minimum entrance requirements but whose previous academic records indicate that they may have difficulty in successfully completing their programs are also advised to enter the Pretechnical program.

The students' academic program will be individually designed to meet their specific preparatory and remedial needs. The courses will be selected from the pretechnical offerings and from technical and/or vocational credit courses.

PRETECHNICAL COURSE OFFERINGS:

Cours	se Title	e Ho	ours	Per	Week	< 1	Cours	e Title	I	Hours	Per	Week
00021			С	L	P QH	- 1				C	L	P QH*
ACA	100	Microcomputer as a					ENG	021	Basic Reading Skills and			
		Study Tool	3	0	0 3				Vocabulary I	3	0	00(3)
ACA	110	Study Skills	3	0	0 3		ENG	022	Basic Reading Skills and			
BIO	010	Human Anatomy	5	0	00(5)				Vocabulary II	3	0	00(3)
BUS	010	Pretechnical Accounting	5	0	00(5)		ENG	023	Basic Reading Skills and	l		
CHM	010	Pretechnical Chemistry	3	2	00(4)				Vocabulary III	3	0	00(3)
ENG	001	Spelling	3	0	00(3)		MAT	001	Structure of Arithmetic	5	0	00(5)
ENG	005	Language Development I	2	2	00(3)		MAT	002	Prebusiness Mathematics	s 5	0	00(5)
ENG	006	Language Development II	2	2	00(3)		MAT	003	Introductory Algebra	5	0	00(5)
ENG	007	Language Development III	[2	2	00(3)		MAT	004	Intermediate Algebra	5	0	00(5)
ENG	008	Language Development IV	7 2	2	00(3)		MAT	005	Geometry	5	0	0(5)
ENG	010	Basic Writing Skills	5	0	00(5)		MAT	009	Algebra and Trigonomet	ry 5	0	00(5)
ENG	019	The Phonetic Approach to				- 1	MAT	020	Mathematics for			
		Language Structure	5	0	00(5)				Health Education	3	0	00(3)
							NUT	001	Basic Nutrition	3	0	00(3)
							PHY	001	Pretechnical Physics	3	2	00(4)

^{*}Equivalent credit hours shown in parenthesis.



The College Transfer program is designed to offer students an opportunity to take the first two years of a liberal arts college curriculum,

COLLEGE TRANSFER

The College Transfer program is designed to offer students an opportunity to take the first two years of a liberal arts college curriculum. The course work includes literature, humanities, mathematics, physical education and the sciences. Students who maintain a grade average of C or better should be able to transfer these credits to

a senior college or university and complete a bachelor's degree. The Associate in Arts degree program concentrates heavily on the humanities and social sciences and is recommended for those who plan to continue in a bachelor of arts degree program at a senior college.

SAMPLE COURSE LISTING

			C	L	P	QH
MAT Course Prefix	121 Course Number	STATISTICS Course Title	5 Classroom Hours Per Week	0 Laboratory Hours Per Week	(or CE) 0 Practicum Per Week (Practical application or clinical experience per week)	5 Quarter Hours Credit

Contact Hours Per Week

COLLEGE TRANSFER - ASSOCIATE IN ARTS C-011

CURRICULUM DESCRIPTION:

The College Transfer program is designed to offer students an opportunity to take the first two years of a liberal arts college curriculum. The course work includes literature, humanities, mathematics, physical education and the sciences. Students who maintain a grade average of C or better should be able to transfer these credits to

a senior college or university and complete a bachelor's degree. The Associate in Arts degree program concentrates heavily on the humanities and social sciences and is recommended for those who plan to continue in a bachelor of arts degree program at a senior college.

CI	JR	RICULUM	В	Y	•	UA	R	TERS: (100 Total	Cred	it Ho	mre)	
Cour	se Tit	le Hour	s Pe	r V	Veek	Cour	se Tit		ours			
		(L	P	QH					L		ОН
		T QUARTER						CTIVES				
		Freshman Composition I 5		0			150		5	0	0	5
	123			0		BIO	107	Anatomy and				
HIS	101	Western Civilization I		0	_	DIO	100	Physiology I	3	2	0	4
PED	101	Fitness for Life		3	1	BIO	108	Anatomy and				
CIE	00	OND QUART		3	16	BUS	120	Physiology II	3	2	0	4
ENIC	151	Freshman Composition II 5			5	BUS	120		4	0	3	5
MAT		Statistics 5		0		BUS	121	Accounting II Accounting III	4	0	3	5 5
1417.7.1	121	OR OR	-	U	J	ECO		Macroeconomics	5	0	0	5
MAT	124			0	5	ECO		Microeconomics	5	0	0	5
HIS	102	Western Civilization II 5		0		EDP	159	Introduction to Compute		U	U	5
PED	102	Fitness and Recreation I		3	1			Information Systems	4	2	0	5
		15		3	16	ENG	220	Survey of African-		_		5
TH	HR	D QUARTER	3	_				American Literature	5	0	0	5
		Social Science Elective 5	0	0	5	ENG	230	Creative Writing:				
		Humanities Elective 5	0	0	5			Short Fiction	5	0	0	5
		Elective 5	0	0	5	ENG	250	Patterns in World				
PED	103	Fitness and Recreation II 0	0	3	1			Literature	5	0	0	5
		15	0	3	16	HIS	111	American History	5	0	0	5
		RTH QUART				HIS	150					
BIO	120	Principles of Biology I 3	2	0	4	YYYG		to 1865	5	0	0	5
CIDA	110	OR OR				HIS	151	American History	~		_	_
CHM	110	General Inorganic	2	0	4	NAAT	101	since 1865	5	0	0	5
		Chemistry I 3 Elective 5	2	0	4	MAT MAT		Statistics Finite Mathematics	5 5	0	0	5
		Elective 5 Social Science Elective 5	0	0	5 5	MAT		Analytic Geometry and	J	U	U	3
ENG	201	English Literature I 5	0	0	5	WIAT	123	Calculus I	5	0	0	5
2110	201	OR OR	U	U	J	MAT	126		5	0	U	3
ENG	210	American Literature I 5	0	0	5	1,111	120	Calculus II	5	0	0	5
		18	2	0	19	MAT	127	Analytic Geometry and		_		
FII	TI	H QUARTER	_		~ ~			Calculus III	5	0	0	5
BIO	121	Principles of Biology II 3	2	0	4	MAT	128	Analytic Geometry and				
		OR OR						Calculus IV	5	0	0	5
CHM	111	General Inorganic				MAT		Business Calculus	5	0	0	5
		Chemistry II 3	2	0	4	MUS		Music Appreciation	5	0	0	5
****		Elective 5	0	0	5	PHI	101	Introduction to	-			
ENG	202	English Literature II 5	0	0	5		4.50	Philosophy	5	0	0	5
ENIC	211	OR OR	_		_	PHY	150		4	0	_	~
ENG	211	American Literature II 5	0	0	5	DOI	100	Astronomy	4	2	0	5
		Elective 5	0	0	5	POL	102	National Government	5	0	0	5
CIT	Z-1001	18	2	U	19	POL	103	State and Local Government	5	0	0	5
BIO	122	H QUARTER Principles of Biology III 3	2	0	4	PSY	102	General Psychology	5	0	0	5
DIO	144	OR OR	2	U	4	PSY	108	Abnormal Psychology	5	0	0	5
СНМ	113	General Inorganic				SOC	102	General Sociology	5	0	0	5
211171	113	Chemistry III 3	2	0	4	500	102	Committee Goodology		0		
		Elective 5	0	0	5							
		Elective 5	0	0	<u>5</u>							
		13	$\frac{3}{2}$		14							

COLLEGE TRANSFER - ASSOCIATE IN SCIENCE C-050

CIERRICIII IIM BY OIJARTERS - (97 or 100 Total Credit House)

CURRICULUM DESCRIPTION:
The College Transfer program is designed a senior college or university and complete a

The College Transfer program is designed to offer students an opportunity to take the first two years of a liberal arts college curriculum. The course work includes literature, humanities, mathematics, physical education and the sciences. Students who maintain a grade average of C or better should be able to transfer these credits to

a senior college or university and complete a bachelor's degree. The Associate in Science degree program concentrates on mathematics and the physical and life sciences and is intended for those pursuing a bachelor of science degree at a senior college.

CURRICULU											
Course Title	Hours				Cour	se Tit	le H	lours C			
TYPER OUT DE	C	L	P	QH				14	L 2	P	QH 15
FIRST QUART	EK				ST	e Tr	H QUARTE		La	U	13
ENG 150 Freshman Composition I	5	0	0	5	CHM		General Inorganic	.1.			
BIO 120 Principles of Biology		2	0	4	CILIVI	115	Chemistry III	3	2	0	4
OR	OR	~	U	7			OR .	OR	_		
CHM 110 General Inorganic	O A C				PHY	213	General Physics III				
Chemistry I	3	2	0	4			with Calculus	4	2	0	5
MAT 123 College Algebra	5	0	0	5	ENG	202	English Literature II	5	0	0	5
PED 101 Fitness for Life	0	0	3	1			OR	OR			
	13	2	3	15	ENG	211	American Literature II	5	0	0	5
SECOND QUAI	RTE	CR					Elective	5	0	0	5
ENG 151 Freshman							Elective	5	0	0	5
Composition II	5	0	0	5				18	2	0	19
BIO 121 Principles of Biology		2	0	4				OR		0	20
OR	OR							19	2	0	20
CHM 111 General Inorganic	3	2	0	4	TET	E.	CTIVES				
Chemistry II MAT 124 College Trigonometr	_	0	0	5	ART		Art Appreciation	5	0	0	5
MAT 124 College Trigonometro PED 102 Fitness and Recreation		0	3	1	BIO	107	Anatomy and	3	0	U	3
1 LD 102 Titless and Recreati	13	2	3		Dio	107	Physiology I	3	2	0	4
THIRD QUART		-		15	BIO	108	Anatomy and	_	_		
BIO 122 Principles of Biolog		2	0	4			Physiology II	3	2	0	4
OR	OR				BUS	120	Accounting I	4	0	3	5
CHM 113 General Inorganic					BUS	121	Accounting II	4	0	3	5
Chemistry III	3	2	0	4	BUS	122	Accounting III	4	0	3	5
MAT 125 Analytic Geometry a					CHM		Organic Chemistry	3	2	0	4
Calculus I	5	0	0	5	ECO		Macroeconomics	5	0	0	5
HIS 101 Western Civilization		0	0	5	ECO	150	Microeconomics	5	0	0	5
PED 103 Fitness and Recreation		0	3	1	EDP	159	Introduction to Comput				-
TOTAL OUT	13	2	3	15	ENG	220	Information Systems	4	2	0	5
FOURTH QUA	KII		•		ENG	220	Survey of African-	=	0	Λ	=
CHM 110 General Inorganic	2	2	0	A	ENG	230	American Literature Creative Writing:	5	0	0	5
Chemistry I	3	2	0	4	ENG	230	Short Fiction	5	0	0	5
OR PHY 211 General Physics I	OR				ENG	250	Patterns in	J	U	U	3
with Calculus	4	2	0	5	LING	250	World Literature	5	0	0	5
MAT 126 Analytic Geometry	7	2	U	5	HIS	111	American History	5	0	0	5
and Calculus II	5	0	0	5	HIS	150	American History				
HIS 102 Western Civilization		0	0	5			to 1865	5	0	0	5
Elective	. 5	0	0	5	HIS	151	American History				
	18	2		19			since 1865	5	0	0	5
	OR				MAT		Statistics	5	0	0	5
	19	2	0	20	MAT		Finite Mathematics	5	0	0	5
FIFTH QUART	ER				MAT	127	Analytic Geometry and		_		~
CHM 111 General Inorganic					3.5.4.77	100	Calculus III	5	0	0	5
Chemistry II	3	2	0	4	MAT	128	Analytic Geometry and		0	0	_
OR PHY 212 General Physics II	OR				MAT	120	Calculus IV Business Calculus	5 5	0	0	5
PHY 212 General Physics II with Calculus	4	2	٥	5		150	Music Appreciation	5	0	0	5
ENG 201 English Literature I	5	2	0	5	PHI	101	Introduction to	J	U	U	3
OR	OR	U	U	J	1 111	101	Philosophy	5	0	0	5
ENG 210 American Literature		0	0	5	PHY	150	Introduction to	5	J	J	9
Elective	5	0	0	5	1	150	Astronomy	4	2	0	5
	13	2	0	14	POL	102	National Government	5	0	0	5
	OR				POL	103	State and Local				
							Government	5	0	0	5
					PSY	102		5	0	0	5
					PSY	108	Abnormal Psychology	5	0	0	5
					SOC	102	General Sociology	5	0	0	5



-ograms

The diploma curricula are practical in nature and are designed to prepare the student for immediate employment opportunities in a skilled trade.

VOCATIONAL DIPLOMA PROGRAM

The diploma curricula are practical in nature and are designed to prepare the student for immediate employment opportunities in a skilled trade. All curricula are designed for one year or four consecutive quarters of intensive study. (Evening curricula require approximately two years.) Upon

completion of a curriculum, the graduate will be awarded the State Vocational Diploma. The vocational courses, forming each diploma curriculum, are not designed for transfer to associate (or higher) degree levels of instruction.

SAMPLE COURSE LISTING

			C	\mathbf{L}	P	QH
ENG Course Prefix	102 Course Number	COMPOSITION Course Title	3 Classroom Hours per week	0 Laboratory Hours per week	(or CE) 0 Practicum per week (Practical application or clinical experience per week)	3 Quarter Hours Credit

Contact Hours per week

AIR CONDITIONING, HEATING, **AND REFRIGERATION V-024**

CURRICULUM DESCRIPTION:

The Air Conditioning, Heating, and Refrigeration curriculum is designed to teach knowledge and skills necessary for servicing and installing residential and light commercial climate control equipment. Instruction will include heating and cooling theory, applied electricity and electronics, and the operating principles for a wide range of heating and cooling equipment. The diploma program will emphasize start-up and service skills for oil, gas, and electric furnaces, aircooled air conditioning, and air-to-air heat pumps.

JOB OPPORTUNITITES

Entry Level

Air Conditioning Mechanic Heating and Air Conditioning Mechanic Heating Mechanic **HVAC Service Technician**

CU	CURRICULUM BY QUARTERS: (71 Total Credit Hours)												
Cours	e Title	H	lours	Pe	r W	eek	Course	e Title	F	Hours	Pe	r W	eek
			C	L	P	QH				C	L	P	QH
FII	RST	FQUARTER	2						D QUARTE	R			
AHR	1102	Fundamentals of					AHR	1104	Air Conditioning				
		Refrigeration	6	0	9	9			Controls I	5	0	3	6
MAT	1102	Algebra	5	0	0	5	AHR	1105	Principles of Air				
PHY		Fundamentals of							Conditioning	6	0	9	9
		Electricity	3	2	0	4	ENG	1112	Communications II	<u>3</u>	0	0	3
WLD	1111	Air Conditioning Welding	g ()	0	3	1				14	0	12	18
			14		12		FO	UR	TH QUART	ΓE	R		
SE	CO	ND QUART	TE!	Ŕ			AHR	1106	Air Conditioning				
		Domestic and Commercia							Controls II	3	0	0	3
	*****	Refrigeration		0	12	10	BUS	1103	Small Business Operation	ns 3	0	0	3
DFT	1107				3		HET	1101	Heating Systems	6	0	12	10
		Applied Electricity			0					12	0	12	16
ENG		Communications I		0		3							
	1101	Communications 1	13	0	15	18							

AIR CONDITIONING, HEATING, AND REFRIGERATION V-024

Evening Curriculum

CURRICULUM DESCRIPTION:

The Air Conditioning, Heating, and Refrigeration curriculum is designed to teach knowledge and skills necessary for servicing and installing residential and light commercial climate control equipment. Instruction will include heating and cooling theory, applied electricity and electronics, and the operating principles for a wide range of heating and cooling equipment. The diploma program will emphasize startup and service skills for oil, gas, and electric furnaces, air-cooled air conditioning, and air-to-air heat pumps.

JOB OPPORTUNITITES

Entry Level
Air Conditioning Mechanic
Heating and Air Conditioning Mechanic
Heating Mechanic
HVAC Service Technician

CURRICULUM	I	37	7	Q	JARTERS: (71 Total Credit Hours)
Course Title H	our	s Pe	r W	eek	Course Title Hours Per Week
	C	L	P	QH	C L P QH
FIRST QUARTER	2			_	FIFTH QUARTER
AHR 1102A Fundamentals of Refrigera	ation	1			AHR 1104 Air Conditioning
(Part I)	3	0	3	4	Controls I 5 0 3 6
MAT 1102 Algebra	5	0	0	5	ENG 1101 Communications I 3 0 0 3
PHY 1103 Fundamentals of					WLD 1111 Air Conditioning Welding 0 0 3 1
Electricity	3	2	0	4	8 0 6 10
· ·	11	2	3	13	SIXTH QUARTER
SECOND QUART		R			AHR 1105 Principles of Air
AHR 1102B Fundamentals of					Conditioning 6 0 9 9
Refrigeration (Part II)	3	0	6	5	6 0 9 9
ELC 1111 Applied Electricity	3	0	0	3	SEVENTH QUARTER
**	6	0	6	8	AHR 1106 Air Conditioning
THIRD QUARTE	R				Controls II 3 0 0 3
AHR 1103A Domestic and Commercia	1				ENG 1112 Communications II 3 0 0 3
Refrigeration (Part I)	3	0	6	5	HET 1101A Heating Systems (Part I) 3 0 6 5
	3	0	<u>6</u>	<u>5</u>	9 0 6 11
FOURTH QUART	E	R			EIGHTH QUARTER
AHR 1103B Domestic and Commercia					BUS 1103 Small Business Operations 3 0 0 3
Refrigeration (Part II)	3	0	6	5	HET 1101B Heating Systems
DFT 1107 Blueprint Reading	1	0	3	2	Part II) 3 0 6 5
	4	0	9	7	$\frac{1}{6} \overline{0} \overline{6} \overline{8}$

Students may enter this program at times other than the fall quarter.

AUTOMOTIVE BODY REPAIR V-001

CURRICULUM DESCRIPTION:

The Automotive Body Repair curriculum provides training in the use of the equipment and materials of the auto body mechanic trade. The student studies the construction of the automobile body and techniques of auto body repairing, rebuilding, and refinishing.

Repairing, straightening, aligning, metal finishing, and painting of automobile

bodies and frames are typical jobs performed. Job titles include automobile body repairperson, automotive painter, and frame and chassis repairperson. Persons completing this curriculum may find employment with franchised automobile dealers, independent garages, or may start their own business.

JOB OPPORTUNITIES:

Automobile Accessories Installer Automobile-Repair-Service Estimator Appraiser, Automobile Damage Automatic Window, Seat, and Top Lift Repairer Painter Helper, Automotive Painter, Transportation Equipment Automobile Body Customizer Automobile Body Repairer

CU	JR	RICULUM	I	37	Y	QI	UA	F	TI	ERS: (68 Total Cred	it H	urs)	
Cours	e Title	· II	lour	s Pe	r W	eek	C	ours	e Title	Ho	ours	Pe	r W	eek
			C	L	P	QH					C	L	P	QH
FII	RST	FQUARTEI	₹.				7		IR	D QUARTEI	R			
AUT	1111	Automotive Body Repair	I 3	0	15	8	A	UT	1113	Metal Finishing and				
AUT	1142	Automotive Air								Painting	2	0	12	6
		Conditioning			3	3	A	UT	1114	Frame Straightening and				
ENG	1101	Communications I	3	0	0	3				Alignment	4	0	9	7
MAT	1101	Fundamentals of					PS	SY	1101	Human Relations	3			3
		Mathematics	5	0	0	5					9	-		16
			13	0	18	19				RTH QUART	IE	R		
SE	CO	ND QUART	NE	R			A	UT	1116	Automotive and Truck				
AUT	1112	Automotive Body								Painting	3	0		10
		Repair II	3		15		B	US		Small Business Operations				3
ENG	1112	Communications II			0	3	D	FT	1101	Schematics and Diagrams	0	0		
PHY	1101	Applied Science I	3	2	0	4					6	0	24	14
WLD	1130	Applied Basic GMAW												
		and Gas Welding	2	0	<u>6</u>	4								
			11	2	21	19								

AUTOMOTIVE MECHANICS V-003

CURRICULUM DESCRIPTION:

The Automotive Mechanics curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair, and adjust automotive vehicles. Manual skills are developed in practical shop work and the technical understanding of the operating principles involved in the modern automobile are taught through class assignments, discussions, and shop practices.

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities and rural areas they also may service tractors or marine engines and other gasoline-powered equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition and use shop manuals and other technical publications as references for technical data. Persons completing this curriculum may find employment with franchised automobile dealers, independent garages, or may start their own business.

JOB OPPORTUNITIES:

Entry Level
General Mechanic
Tune-up Mechanic
Front-end Specialist
Automatic Transmiss

Automatic Transmission Specialist

Brake Specialist

Advanced Level

Shop Supervisor Shop Foreman

CURRICULUM BY QUARTERS: (71 Total Credit Hours) Course Title Hours Per Week | Course Title Hours Per

Course Title	Hours Per Week							
	C	L	P	QH				
FIRST QUARTE	CR							
AUT 1130 Basic Electricity	2	0	3	3				
AUT 1131 Introduction to Autome	obile							
and Shop Equipment	2	2	0	3				
AUT 1132 Automotile Fuel System	ms							
and Carburetors	1	0	3	2				
AUT 1133 Automobile Brake								
Systems	2	0	6	4				
MAT 1101 Fundamentals of								
Mathematics	5	<u>0</u> 2	<u>0</u> 12	5				
	12			17				
SECOND QUAR	TE	R						
AUT 1136 Automotive Electronic	s 1	0	3	2				
AUT 1137 Automotive Electronic								
Fuel Injection	1	0	3	2				
AUT 1138 Automobile Chassis								
and Suspension	2	0	6	4				
AUT 1143 Basic Engine Operation	n							
and Repair	2	0	6	4				
ENG 1101 Communications I	2 3	0	0	3 <u>4</u>				
PHY 1101 Applied Science I	3	2	0	4				
	12	2	18	19				

Course Title	Hours	Pe	er W	eek
		L	P	QH
THIRD QUAR	RTER			
AUT 1139 Engine Performa	nce			
with Diagnostics	2	0	6	4
AUT 1140 Automobile Whe	el			
Alignment	1	0	3	2
AUT 1141 Standard Transm	issions,			
Transaxles, and I	Drive			
Trains	2	0	6	4
ENG 1112 Communications	II 3	0	0	3
HUM 1101 Humanities for				
Vocational Stude	nts 3	0	0	3
WLD 1101 Basic Gas and				
Arc Welding	1	0	3	2
	12	0	3 18	18
FOURTH QUA		R		
AUT 1135 Automobile Cran	king,			
Charging, and Mo				
Operated Systems	s 2	0	6	4
AUT 1142 Automotive Air				
Conditioning	2	0	3	3
AUT 1144 Automotive Emis	sions			
Controls	2	0	3	3
AUT 1145 Automatic Transr	nission			
Servicing	1	0	3	2
BUS 1103 Small Business O		0		3
MEC 1112 Machine Shop Pro		0	3	2
	11	0	18	17

AUTOMOTIVE MECHANICS V-003

Evening Curricululm

CURRICULUM DESCRIPTION:

The Automotive Mechanics curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair, and adjust automotive vehicles. Manual skills are developed in practical shop work and the technical understanding of the operating principles involved in the modern automobile are taught through class assignments, discussions, and shop practices.

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities and rural areas they also may service tractors or marine engines and other gasoline-powered equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition and use shop manuals and other technical publications as references for technical data. Persons completing this curriculum may find employment with franchised automobile dealers, independent garages, or may start their own business.

JOB OPPORTUNITIES:

Entry Level General Mechanic Tune-up Mechanic Front-end Specialist

Automatic Transmission Specialist **Brake Specialist**

Advanced Level Shop Supervisor Shop Foreman

Course Title

CURRICULUM BY OUARTERS: (71 Total Credit Hurs) Hours Per Week **Course Title** L P OH FIRST QUARTER AUT 1130 Basic Electricity 0 3 3 AUT 1131 Introduction to Automobile and Shop Equipment 2 2 0 3 MAT 1101 Fundamentals of 5 0 0 5 Mathematics PHY 1101 Applied Science I 2 0 4 3 15 SECOND QUARTER AUT 1132 Auto Fuel Systems and Carburetors 0 3 2 AUT 1133 Automobile Brake 2 0 6 4 Systems WLD 1101 Basic Gas and Arc Welding 0 0 12 Δ THIRD QUARTER AUT 1138 Automobile Chassis and Suspension 0 6 4 AUT 1143 Basic Engine Operations and Repair 0 6 $\bar{4}$ 0 12 8 FOURTH QUARTER 2 AUT 1136 Automotive Electronics 3 AUT 1140 Automobile Wheel 0 3 2 Alignment AUT 1142 Automotive Air 0 Conditioning MEC 1112 Machine Shop Processes 0

			•	L.	*	Am
FIF'	TI	I QUARTER				
AUT 1	137	Automobile Electronic				
		Fuel Injection	1	0	3	2
AUT 1	139	Engine Performance with				
		Diagnostics	2	0	6	4
ENG 1	101	Communications I	3	0	0	4 3 9
			6	0 <u>0</u> 0	9	9
SIX	TI	I QUARTER				
AUT 1	135	Automobile Cranking,				
		Charging, and				
		Motor-Operated Systems	2	0	6	4
AUT 1	144	Automotive Emissions				
		Controls	2	0	3	<u>3</u>
			4	0	<u>3</u>	7
SEV	ZE	NTH QUAR	LI	DIR	2	
		Standard Transmissions,				
		Transaxles, and Drive				
		Trains	2	0	6	4
AUT 1	145	Automatic Transmission				
		Servicing	1	0	3	2
BUS 1	103	Small Business Operations	3	0	0	3
		Communications II	3	0	0	3
	101	Humanities for Vocational				
		Students	3	0	0	3
		1	2	0	9	15

Hours Per Week

C L P QH

DIESEL VEHICLE MAINTENANCE V-013

CURRICULUM DESCRIPTION:

The Diesel Vehicle Maintenance curriculum provides a program for developing the basic knowledge and skills needed in diesel vehicle maintenance. Manual skills are developed in practical shop work.

The use of diesel engines is found in farm and construction equipment, electric generators, trucks, buses, trains, automobiles, and ships. Many diesel vehicle mechanics specialize in maintenance and repair of equipment; others specialize in rebuilding engines.

eo Titlo

Diesel vehicle mechanics are instructed through class assignments, discussion, and shop practice to maintain and repair engines, chassis and suspensions, and power trains used to power farm equipment, construction equipment, buses, and trucks. They use handtools, precision measuring and testing instruments, and power tools in overhauling and maintaining diesel-powered equipment.

JOB OPPORTUNITIES:

Diesel Mechanic
Diesel Mechanic Apprentice
Diesel Mechanic Helper
Fuel-Injection Servicer
Tractor Mechanic Helper

Repairer, Heavy Construction Equipment Mechanic Helper Spring Repairer Helper, Hand Maintenance Mechanic Helper

CURRICULUM BY QUARTERS: (75 Total Credit Hours)

Cours	e Title	è 1	Hours	Pe	r W	eek	Cour
			C	L	P	QH	
		F QUARTE				Ť	TH
DFT	1101	Schematics and Diagram	ıs 0	0	3	1	DVM
		Introduction to Diesel	1	0	3	2	DVM
DVM	1111	Vehicle Servicing	3	0	9	6	
			2	0	3	3	DVM
DVM	1113	Air Brakes	2	0	3	3	ENG
MAT	1101	Fundamentals of					HUM
		Mathematics	5	0	0	5	
			13		21	20	WLD
SE	CO	ND QUART	NEI	R			
DVM	1114	Diesel Engines	4	0	15	9	
DVM	1115	Drive Trains	2	0	6	4	FO
ELN	1110	Basic Electronics	1	0	3	2	BUS
PHY	1102	Applied Science II	3	2	0	4	DVM
			10	2	24	19	DVM
							DVM
							ACC

	Cours	e iiii	C	HOUR	P	er vv	еек
				C	L	P	OH
	TH	IIR	D QUARTE	CR			
	DVM	1116	Suspension and Steering	2 2	0	6	4
	DVM	1117	Truck Charging and				
			Starting Systems	2	0	6	4
	DVM	1119	Diesel Fuel Systems	2		6	4
	ENG	1112	Communications II	3	0	0	3
	HUM	1101	Humanities for				
			Vocational Students	3	0	0	3
	WLD	1101	Basic Gas and				
			Arc Welding	1	0	3	2
				13		21	20
	FO	UF	RTH QUAR'	TE	R		
١	BUS	1103	Small Business Operation	ons 3	0	0	3
	DVM	1118	Truck Electrical System	s 1	0	6	3
Į	DVM	1120	Diesel Truck Maintenan	ce 2	0	6	4
i	DVM	1121	Truck Air Conditioning	2	0	3	3
	MEC	1120	Machine Processes	1	0	6	3
				0	0	21	16

ELECTRICAL INSTALLATION V-018

CURRICULUM DESCRIPTION:

The Electrical Installation curriculum is designed to provide a training program in the basic knowledge, fundamentals, and practices involved in the electrical trades. A large segment of the program is laboratory and shop instruction designed to give the student practical knowledge and application experience in the fundamentals taught

in class.

The graduate of this curriculum is qualified to enter an electrical trade as an on-the-job trainee or apprentice, assisting in the layout and installation of electrical systems in residential, commercial, or industrial settings.

JOB OPPORTUNITIES:

Entry Level
Electrical Apprentice

Advanced Level

Electrician

CURRICULUM BY QUARTERS: (77 Total Credit Hours)

Cours	e Title		Hours	Pe	r W	eek	Course Title Hours Per Week
			C	L	P	QH	C L P QH
FII	RST	FOUARTE	R				THIRD QUARTER
ELC	1121	Electrical Installation					DFT 1113 Blueprint Reading:
		Fundamentals	7	0	15	12	Electrical 0 0 3 1
MAT	1101	Fundamentals of					ELC 1123 Residential Wiring II 6 0 15 11
****		Mathematics	5	0	0	5	ENG 1112 Communications II 3 0 0 3
PHY	1103	Fundamentals of					PSY 1101 Human Relations <u>3 0 0 3</u>
		Electricity	3	2	0	4	12 0 18 18
		2100111010)	15		15		FOURTH QUARTER
SE	CO	ND QUAR	TE	R			BUS 1103 Small Business Operations 3 0 0 3
		Blueprint Reading I	0	0		1	ELC 1125 Commercial and Industrial
		Residential Wiring I	7	0	15	12	Wiring 6 0 15 11
		Communications I	3	0	0	3	ELN 1118 Industrial Electronics 3 0 3 4
		Applied Science II	3	2	0	4	12 0 18 18
1111	1102	ripplied Sololide II	13	2	18	20	

ELECTRONIC SERVICING V-042

CURRICULUM DESCRIPTION:

The curriculum in Electronic Servicing is designed to provide basic knowledge and skills required in the installation, maintenance, and servicing of electronic components and systems. Laboratory time will be spent verifying electronic theory and principles, and learning installation, maintenance, and service techniques.

An electronic service technician will be able to install, maintain, and service electronic equipment, including radios, televisions, audio/video recording and playback equipment, home entertainment systems, digital electronic systems, Master Antenna Television, and cable television components and systems.

JOB OPPORTUNITIES:

Electronic Service Technician Audio/Video Service Technician Radio Service Technician Television Service Technician

CURRICULUN	1 I	3 .	Y	Qt	JARTERS: (71 Total Credit Hours)
	Hour				Course Title Hours Per Week
		L	P	QH	C L P OH
FIRST QUARTE	R				THIRD QUARTER
ELC 1120 Direct and Alternating					ELN 1123 Black and White
Current	7	0	15	12	Television Servicing 7 0 18 13
ENG 1101 Communications I	3	0	0	3	PHY 1104 Applied Science IV 3 2 0 4
MAT 1115 Elements of					10 2 18 17
Mathematics I	5	0	0	5	FOURTH QUARTER
	15	0	15	20	ELN 1124 Color Television
SECOND QUAR	TE	R			Servicing 6 0 21 13
ELN 1121 Solid State Devices					HUM 1101 Humanities for
and Circuits	5	0	9	8	
ELN 1122 Transistor Theory					Vocational Students 3 0 0 3 9 0 21 16
and Circuits	4	0	9	7	7 0 21 10
MAT 1116 Elements of					
Mathematics II	3	0	0	3	

12 0 18 18

ELECTRONIC SERVICING - ADVANCED V-042A

CURRICULUM DESCRIPTION:

The curriculum in Electronic Servicing is designed to provide basic knowledge and skills required in the installation, maintenance and servicing of electronic components and systems. Laboratory time will be spent verifying electronic theory and principles, and learning installation, maintenance, and service techniques.

An electronic service technician will be able to install, maintain, and service electronic equipment, including radios, televisions, audio/ video recording and playback equipment, home entertainment systems, digital electronic systems, Master Antenna Television, and cable television components and systems.

ADVANCED DIPLOMA:

The Advance Diploma program provides for more in-depth studies of electronics and testing procedures. It also provides for advance skill

development in areas such as digital logic circuits, VCR, and compact disc servicing.

ADMISSIONS REQUIREMENTS:

Applicants must be graduates of a one-year electronic servicing program (diploma) or have comparable experience. The work experience will

be evaluated by the chairperson of the Electronic Servicing program.

TOTAL CREDIT HOURS: 27

Cours	e Title	urs	Per	r W	eek	
			C	L	P	QH
BUS	1103	Small Business Operations	3	0	0	3
ELN	1125	(A) Digital Logic Circuits	3	0	6	5
ELN	1125	(B) Digital Logic Circuits	2	0	3	3
ELN	1126	(A) VCR Servicing	3	0	6	5
ELN	1126	(B) VCR Servicing	2	0	3	3
ELN	1127	(A) Compact Disc				
		Servicing	3	0	6	5
ELN	1127	(B) Compact Disc				
		Servicing	2	0	3	3
			18	0	27	27

GRAPHIC ARTS - PRINTING V-022

CURRICULUM DESCRIPTION:

This curriculum gives individuals experience with equipment and a working knowledge of methods used in the graphic arts industry. Ample opportunities are provided for students to develop skills in the operation of machines and equipment and to become familiar with a wide range of graphic processes.

There are many distinct occupations in the graphic arts industry. Graduates will be able to set type by various methods, prepare copy and artwork, proofread, operate presses, understand the photomechanical process, operate bindery equipment and perform a variety of other graphic arts skills.

JOB OPPORTUNITIES:

Printer
Printer Helper
Press Operator
Press Operator Apprentice
Paste-up Artist
Camera Process Operator
Image Assembler
Type Setter

CURRICULUM BY QUARTERS: (74 Credit Hours)

Cours	se Title	e 1	Hours	s Pe	er W	/eek	Cours	se Title		Hours	Pe	r W	eek
				L	P	QH							ОН
FII	RS]	T QUARTE	R				TE	IIR	D QUARTI	ER			
BUS	1122	Vocational Keyboarding	3	0	0	3			Communications I	3	0	0	3
EDP	1101	Desktop Publishing for					PRN	1133	Offset Printing II	6	0	15	11
		Graphic Arts	3	0	0	3			Composition II	3	0	3	4
PRN	1131	Introduction to Printing	6	0	12	10			*	12	0	18	18
PRN	1150	Printer's Mathematics	5	0	0	5	FO	UF	RTH QUAR	TE	Ŕ		
			17		12	21			Small Business Operati		0	0	3
SE	CO	ND QUART	TE.	R					Communications II	3	0	0	3
PHY	1114	Science for Printers	3	2	0	4	PRN	1136	Estimating	5	0	0	5
PRN	1132	Offset Printing I	4	0	12	8	PRN	1137	Printing Project	0	0	21	7
PRN	1134	Composition I	3	0	6	5				11	_		18
			10	2	18	17							

MACHINIST V-032

CURRICULUM DESCRIPTION:

The Machinist curriculum gives individuals the opportunity to acquire basic skills and related technical information necessary to gain employment in the metalworking industries. The machinist is a skilled metalworker who shapes metal by using machine tools and hand tools. Machinists must be able to set up and operate the machine tools found in a modern shop. Computer Numerical Control (CNC) may be integrated into various phases of the curriculum or as specialized courses.

The machinist is able to select the proper tools and materials required for each job and to

plan the cutting and finishing operations in their proper order so that the work can be finished according to blueprint or written specifications. The machinist makes computations relating to dimensions of work, tooling, feeds, and speeds of machining. Precision measuring instruments are used to measure the accuracy of work. The machinist also must know the characteristics of metals so that annealing and hardening of tools and metal parts can be accomplished in the process of turning a block of metal into an intricate, precise part.

JOB OPPORTUNITIES:

Entry Level
Machinist Apprentice
Tool and Die Maker Apprentice
Machine Set-up Operator
Quality Control Technician
Production Machine Operator
CNC Set-up Operators

Advanced Level Machinist Maintenance Machinist

CURRICULUM BY QUARTERS: (69 Total Credit Hours)

Cours	e Title	9	Hours Per Wee						
			C	Ĺ	P	QH			
FII	RSI	FQUARTE	\mathbf{R}						
DFT	1104	Mechanical Drawing I	1	0	3	2			
HUM	1101	Humanities for							
		Vocational Students	3	0	0	3			
MAT	1101	Fundamentals of							
		Mathematics	5	0	0	5			
MEC	1101	Machine Shop Theory							
		and Practice I	4	0	12 15	8			
			13	_	15	18			
		ND QUAR	ND	R					
DFT	1105	Mechanical Drawing II	1	0	3	2 5			
MAT	1102	Algebra	5	0	0	5			
		Machine Shop Theory							
		and Practice II	4	0	12	8			
MEC	1115	and Practice II Metallurgy for Machini	sts 2	0	<u>3</u>	3			
			12	0	18	18			

Cours	e Title)	Hours	Pe		eek
			C	L	P	QH
TH	IR	D QUARTE	CR			
DFT	1106	Mechanical Drawing III	1	0	3	2
ENG	1112	Communications II	3	0	0	3
MAT	1103	Geometry	3	0	0	3
MEC	1103	Machine Shop Theory				
		and Practice III	3	0	12	7
MEC	1113	CNC Lathe Operation	1		3	
			11	-	18	17
FO	UF	RTH QUAR	TE	R		
MAT	1104	Trigonometry	3	0	0	3
MEC	1104	Machine Shop Theory				
		and Practice IV	3	0	12	7
MEC	1114	CNC Milling Machine				
		Operation	1	0	3	2
PHY	1101	Applied Science I	3		0	4
		**	10	2	15	16

MACHINIST V-032

Evening Curriculum

CURRICULUM DESCRIPTION:

The Machinist curriculum gives individuals the opportunity to acquire basic skills and related technical information necessary to gain employment in the metalworking industries. The machinist is a skilled metalworker who shapes metal by using machine tools and hand tools. Machinists must be able to set up and operate the machine tools found in a modern shop. Computer Numerical Control (CNC) may be integrated into various phases of the curriculum or as specialized courses.

The machinist is able to select the proper toolsand materials required for each job and to plan

the cutting and finishing operations in their proper order so that the work can be finished according to blueprint or written specifications. The machinist makes computations relating to dimensions of work, tooling, feeds and speeds of machining. Precision measuring instruments are used to measure the accuracy of work. The machinist also must know the characteristics of metals so that annealing and hardening of tools and metal parts can be accomplished in the process of turning a block of metal into an intricate, precise part.

JOB OPPORTUNITIES:

Entry Level
Machinist Apprentice
Tool and Die Maker Apprentice
Machine Set-up Operator
Quality Control Technician
Production Machine Operator
CNC Set-up Operators

Advanced Level
Machinist
Maintenance Machinist

CURRICULUM BY QUARTERS: (69 Total Credit Hours)

Course Title	Hour	Hours Per Wo							
	C	L	P	QH					
FIRST QUART	ER			_					
HUM 1101 Humanities for									
Vocational Students	3	0	0	3					
MAT 1101 Fundamentals of									
Mathematics	5	0	0	5					
MEC 1101A Machine Shop Theor	V								
and Practice I (Part I)		0	6	4					
	10	0	6	12					
SECOND QUAR	RTE	R							
ENG 1112 Communications II	3	0	0	3					
MAT 1102 Algebra	5	0	0	5					
MEC 1101B Machine Shop Theor	y								
and Practice I (Part II	2	0	6	4					
	10	0	6	12					
THIRD QUART	ER								
MAT 1103 Geometry	3	0	0	3					
MEC 1102A Machine Shop Theory	/			-					
and Practice II (Part I		0	6	4					
MEC 1115 Metallurgy for Machi		0	3	3					
	7	0	9	10					
FOURTH QUAI	RTE	R							
MAT 1104 Trigonometry	3	0	0	3					
MEC 1102B Machine Shop Theory	,								
and Practice II (Part)		0	6	4					
PHY 1101 Applied Science I	3		Q	4					
	8	2 2	6	11					

	(o) Total Cit	uit iivu	10)		
Cour	se Title	Hour	s Pe	er W	eek
		C	L	P	QH
	FTH QUARTE	R			-
DFT	1104 Mechanical Drawing I	1	0	3	2
MEC	1103A Machine Shop Theory				
	and Practice III (Part I)	2	0	6	4
MEC	1113 CNC Lathe Operation	1	0	<u>3</u> 12	2
	*	4	0	12	8
SI	XTH QUARTE	R	·	~~	0
	1105 Mechanical Drawing II	1	0	3	2
	1103B Machine Shop Theory				_
	and Practice III (Part II)	1	0	6	3
MEC	1114 CNC Milling Machine				
	Operation	$\frac{1}{3}$	0	<u>3</u> 12	2
		3	0	12	7
SE	VENTH QUAI	RTI	D)	R	
	1104 Machine Shop Theory				
	and Practice IV	3	0	12	7
DFT	1106 Mechanical Drawing III	1	0	3	2
		4	0	15	9

PLUMBING AND PIPEFITTING V-037

CURRICULUM DESCRIPTION:

The Plumbing and Pipefitting curriculum is designed to train individuals to repair or install plumbing systems in residences and small commercial buildings. Courses in plumbing practices and pipefitting are included to provide practical experience, as well as courses in theory that one must know to advance and keep up to date with innovations. Other courses in communication skills, physics, human relations, and business

operations are provided to assist the individual in occupational growth.

Plumbers are employed by contractors in the building construction fields to install pipe systems which carry water, steam, air, or other liquids or gases for sanitation, heating, industrial production, and various other uses. They also alter and repair existing pipe systems and install plumbing fixtures, appliances, and heating and refrigeration units.

JOB OPPORTUNITIES:

Entry Level
Plumber (Apprentice)
Pipefitter (Apprentice)

Advanced Level (with experience)

Plumber Pipefitter Foreman

Foreman or Supervisor

CURRICULUM BY QUARTERS: (68 Total Credit Hours)

		KICOLOI	VI I	, ,	-	V,		. JL J	- (00 Total Cit	un mu	10)	
Cours	e Title		Hours	Pe	r W	eek Course Title			Hours	Pe	r W	
			C	L	P	QH				C	L	P
FII	RS7	COUARTE	CR				TH	IIR	D QUARTI	ER		
DFT	1110	Blueprint Reading I	0	0	3	1	DFT	1112	Drafting I: Plumbing	1	0	3
MAT	1101	Fundamentals of					PLU	1133	Plumbing III	5	0	18
		Mathematics	5	0	0	5	PSY	1101	Human Relations	<u>3</u>	0	0
PLU	1131	Plumbing I	8	0	15	13				9	0	21
			13	0	18	19	FO	UF	RTH QUAR	TIE	R	
SE	CO	ND QUAR		R			BUS	1103	Small Business Operati	ons 3	0	0
ENG	1101	Communications I	3	0	0	3	ENG	1112	Communications II	3	0	0
PHY	1101	Applied Science I	3	2	0	4	PLU	1134	Plumbing IV	3	0	21
PLU	1132	Plumbing II	3	0	15	8				9	0	21
WLD	1101	Basic Gas and										
		Arc Welding	1	0	3	2						
			10	2	18	17						

PRACTICAL NURSING V-038

CURRICULUM DESCRIPTION:

Practical Nursing curriculum graduates are prepared to take the National Council Licensure Examination required to practice as a Licensed Practical Nurse. The Practical Nursing curriculum is designed to develop competencies in the following five components of practice, as defined by the North Carolina Nursing Practice Act, 1981: participating in assessing the client's physical and mental health including the client's reaction to illnesses and treatment regimens; recording and reporting the results of the nursing assessment; participating in implementing the health care plan developed by the registered nurse and/or prescribed by any person authorized by state law to prescribe such a plan, by performing tasks delegated by and performed under the supervision or under orders or directions

of a registered nurse, physician licensed to practice medicine, dentist, or other person authorized by state law to provide such supervision; reinforcing the teaching and counseling of a registered nurse, physician licensed to practice medicine in North Carolina, or dentist; and reporting and recording the nursing care rendered and the client's response to that care.

Licensed Practical Nurses may be employed in hospitals, nursing homes, clinics, doctors' offices, industry, and public health agencies.

Individuals desiring a career in practical nursing should be encouraged to take math and science courses in high school.

8 4 12 3 0 0

4 12 20

JOB OPPORTUNITIES:

Licensed Practical Nurse (LPN)

Course Title	<u>.</u>	Hours	Per	·W	eek	Course Title Hours Per	Week
			L	P	QH	C L	P QH
FIRST	T QUARTI	ER				THIRD QUARTER	
NUT 101	General Nutrition					ENG 101 Introduction to	
	and Diet Therapy	3	0	0	3	Written Communication 3 0	0 3
PNE 1103	Anatomy and					PNE 1303 Maternity-Newborn	
	Physiology	4	0	0	4	Nursing (1/2 quarter) & 4 1'	7

CURRICULUM BY QUARTERS: (78 Total Credit Hours)

PNE	1103	Anatomy and					PNE	1303	Maternity-Newborn
		Physiology	4	0	0	4			Nursing (1/2 quarter)
PNE	1105	Drug Administration I 3	3	0	0	3	PNE		Child Health Nursing
		Fundamentals of Nursing							(1/2 quarter)
		Psychology	3	0	0	3	PSY		Lifespan Psychology
		20)	6	0	23			, , ,
4 W 3	1	THE A THE PARTY	-	-					

	COND QUAR	LE	7					CTH OUAR		ann e	2	
	1111 Drug Administration II	4	0	0				Medical-Surgical				
PNE	1302 Medical-Surgical							Nursing II	9	0	15	14
	Nursing I	2	0	<u>15</u>	<u>14</u>	PNE	1306	Nursing Seminar			0	
		13	0	15	18						15	

RESIDENTIAL CARPENTRY V-007

CURRICULUM DESCRIPTION:

The Residential Carpentry curriculum trains students to construct and make repairs to residential structures using standard building materials and hand and power tools. This curriculum is designed to teach carpentry skills and a general knowledge of residential construction. Instruction also includes the study of mathematics, blueprint reading, building codes and energy-efficient construction.

Graduates will have a working knowledge of building materials, concrete form construction, rough framing, roofing, stair construction, insulation and the application of interior and exterior trim.

Graduates should qualify for employment in the residential building construction field as rough carpenters, framing carpenters, roofers, maintenance carpenters and other related job titles.

JOB OPPORTUNITIES:

Entry Level

Apprentice Carpenter
Maintenance Carpenter
Framing Carpenter
Trim Carpenter
Roofer

CURRICULUM BY QUARTERS: (69 Total Credit Hours)

Course Title	Hours Per Week											
	C	L	P	HÇ								
FIRST QUARTER												
CAR 1101 Carpentry I	5	0	15	10								
DFT 1110 Blueprint Reading I	0	-0	3	1								
ENG 1101 Communications I	3	0	0	3								
MAT 1101 Fundamentals of												
Mathematics	5	0	0	5								
	13	0	18	19								
SECOND QUAR	TE	R										
CAR 1102 Carpentry II	5	0	15	10								
DFT 1111 Blueprint Reading II	0	0	3	1								
MAT 1114 Carpenter's Mathematic	cs 5	0	0	5								
PSY 1101 Human Relations	3	0	0	3								
	13	0	18	19								

BUS 1103 Small Business 3 0 0 Operations CAR 1103 Carpentry III CAR 1114 Building Codes 5 0 15 10 0 0 0 15 16 11 FOURTH QUARTER CAR 1105 Carpentry IV 5 0 15 10 CAR 1115 Estimating for Residential $2 \ 0 \ 0$ 2 Construction

 $\begin{array}{cccc} \underline{0} & \underline{0} & \underline{3} \\ 0 & 15 & 15 \end{array}$

10

THIRD QUARTER

ENG 1112 Communications II

WELDING V-050

CURRICULUM DESCRIPTION:

The Welding curriculum gives students sound knowledge of the principles, methods, techniques, and skills essential for successful employment in the welding field and metals industry. Welders join metals by applying intense heat, and sometimes pressure, to form a permanent bond between intersecting metals.

Welding offers employment in practically any industry: shipbuilding, automotive, aircraft, guided missiles, heavy equipment, railroads, construction, pipefitting, production shops, job shops, and many others.

JOB OPPORTUNITIES:

Combination Welder

Entry Level Advanced Level
Arc Welder Lay-out Worker I
Arc Welding - Machine Operator
Gas Welding - Machine Operator
Gas Welder
Welder - Assembler

CURRICULUM BY QUARTERS: (68 Total Credit Hours)

Course Title	Hours	Pe	r W	eek	Course Title Ho	urs	Per	·W	eek
	C	L	P	QH		C	L	P	QH
FIRST QUART	ER				THIRD QUARTE	R			
DFT 1104 Mechanical Drawing	I 1	0	3	2	MAT 1103 Geometry	3	0	0	3
MAT 1101 Fundamentals of					MEC 1117 Metallurgy for Welders	2	0	3	3
Mathematics	5	0	0		WLD 1123 Inert Gas Welding	1	0	6	3
PSY 1101 Human Relations	3	0	0	3	WLD 1124 Advanced Arc Welding	3	0	12	7
WLD 1120 Oxyacetylene Weldin	ıg					9	0	21	16
and Cutting	2	0	6	4	FOURTH QUART	CE	CF	2	
WLD 1129 Basic Gas Metal					ENG 1112 Communications II	3	0	0	3
Arc Welding	2	0	9	5	MEC 1112 Machine Shop Processes	1	0	3	2
	13	0		19	WLD 1113 Mechanical Testing				
SECOND QUAR	RTE		2		and Inspection	1	0	3	2
DFT 1117 Blueprint Reading:					WLD 1126 Advanced Inert				
Welding	0				Gas Welding	3	0	9	6
ENG 1101 Communications I	3	0	0	3	WLD 1128 Welding Procedures				
PHY 1103 Fundamentals of					and Practices	1	0	6	3
Electricity	3	2	0	4		9	0	21	16
WLD 1121 Basic Arc Welding	4	0	<u>15</u>	9			U	4 1	10
	10	2	18	17					

WELDING V-050

Evening Program

CURRICULUM DESCRIPTION:

The Welding curriculum gives students sound knowledge of the principles, methods, techniques, and skills essential for successful employment in the welding field and metals industry. Welders join metals by applying intense heat, and sometimes pressure, to form a permanent bond between intersecting metals.

Welding offers employment in practically any industry: shipbuilding, automotive, aircraft, guided missiles, heavy equipment, railroads, construction, pipefitting, production shops, job shops, and many others.

JOB OPPORTUNITIES:

Entry Level
Arc Welder
Arc Welding - Machine Operator
Gas Welding - Machine Operator
Gas Welder
Welder - Assembler
Combination Welder

Advanced Level Lay-out Worker I Welder - Fitter

CURRICULUM BY QUARTERS: (68 Total Credit Hours) House Per Week - Course Title House Per Week

Course Title	Hours	Per	: W	eek
	C	L	P	QH
FIRST QUART	ER			
DFT 1104 Mechanical Drawi	ng I 1	0	3	2
PHY 1103 Fundamentals of				
Electricity	3	2	0	4
WLD 1120 Oxyacetylene Wel	ding			
and Cutting	2	<u>0</u> 2	6	4
	6	2	9	10
SECOND QUA	RTE	CR		
MAT 1101 Fundamentals of				
Mathematics	5	0	0	5
WLD 1129 Basic Gas Metal				
Arc Welding	<u>2</u> 7	0	9	5
	7	0	9	10
THIRD QUAR	TER			
DFT 1117 Blueprint Reading	:			
Welding	0	0	3	1 3
ENG 1101 Communications I	3	0	0	3
WLD 1121ABasic Arc Welding	g			
(Part I)	<u>2</u> 5	0	<u>6</u> 9	<u>4</u> 8
				8
FOURTH QUA	RTI	Z F	2	
PSY 1101 Human Relations	3	0	0	3
WLD 1121BBasic Arc Welding	3			
(Part II)	<u>2</u> 5	0	9	5
	5	0	9	8

Course Title	Hours	re	r w	еек
	C	L	P	QH
FIFTH QUART	ER			
MEC 1117 Metallurgy for Welde	ers 2	0	3	3
WLD 1124AAdvanced Arc Weldin				
(Part I)	2	0	9	5
,	4	0	9 12	<u>5</u> 8
SIXTH QUART	ER			
MEC 1112 Machine Shop Proces		0	3	2
WLD 1123 Inert Gas Welding	1	0	6	2
WLD 1124BAdvanced Arc Weldi	ng			
(Part II)	1	0	3	2
	3	0	$1\overline{2}$	<u>2</u> 7
SEVENTH QUA	RT	E	R	
ENG 1112 Communications II	3	0	0	3
WLD 1126 Advanced Inert				
Gas Welding	3	0	9	<u>6</u> 9
	6	0	9	9
EIGHTH QUAR	TE	R	2	
MAT 1103 Geometry	3	0	0	3
WLD 1113 Mechanical Testing				
and Inspection	1	0	3	2
WLD 1128 Welding Procedures				
and Practices	1	0	6	3
	5	0	9	8
		_		

WELDING - ADVANCED V-050A

CURRICULUM DESCRIPTION:

The Welding curriculum gives students sound knowledge of the principles, methods, techniques, and skills essential for successful employment in the welding field and metals industry. Welders join metals by applying intense heat, and sometimes pressure, to form a permanent

bond between intersecting metals.

Welding offers employment in practically any industry: shipbuilding, automotive, aircraft, guided missiles, heavy equipment, railroads, construction, pipefitting, production shops, job shops, and many others.

ADVANCED DIPLOMA:

Advanced-diploma level programs provide for more in-depth studies of metallurgy, nondestructive testing procedures, welding power sources, automated welding systems, and other technological developments. They also provide for advanced skill development in areas such as fabrication and Welding pipe and tubing.

ADMISSIONS REQUIREMENTS:

Applicants must be graduates of a one-year welding program (diploma) or have comparable

experience. The work experience will be evaluated by the chairperson of the Welding program.

TOTAL CREDIT HOURS: 35

Cours	e Titl	e Hou	ırs	Per	· W	eek
			C	L	P	QH
MEC	1115	Metallurgy for				
		Machinists	2	0	3	3
WLD	1140	Welding Power Sources	3	0	3	4
WLD	1141	Advanced Wire Welding	2	0	6	4
WLD	1142	Nondestructive Testing I	3	0	3	4
WLD	1143	Nondestructive Testing II	3	0	3	4
WLD	1144	Welding Fabrication I	2	0	3	3
WLD	1145	Welding Fabrication II	2	0	3	3
WLD	1146	Robotic Programming				
		for Welding	1	0	6	3
WLD	1148	SMAW Pipe Welding	1	0	6	3
WLD	1149	Tubing and Pipe Inert				
		Gas Welding	2	0	6	4
		2	1	0	42	35



rograms

Certificate programs are especially designed educational plans of study drawn from existing curricula for persons who desire to improve their job skills in a particular area of interest.

CERTIFICATE PROGRAMS

Certificate programs are especially designed educational plans of study drawn from existing curricula for persons who desire to improve their job skills in a particular area of interest.

The programs are also designed to meet the

needs of employers in upgrading the occupational skills of their employees. Each certificate program may be tailored toward the requirements of a specific business, industry, or organization.

BENEFITS:

Short program-- 3 or 4 quarters

Practical application -- immediate hands-on and real-world application

Training on newest equipment -- IBM electronic typewriters, AT&T personal computers, and IBM personal computers

Software used -- Lotus 1, 2, 3 Wordstar dBase II, III

CERTIFICATE IN CLERICAL PROCESSING T-033C

DESCRIPTION:

The purpose of the Certificate in Clerical Processing is to provide intensive clerical training through the development of such

core skills as keyboarding, word processing, and microcomputing.

CURRICULUM BY QUARTERS: (40 Total Credit Hours)

Cours	se Titl	e	Hours	Per	W	eek	Cour	se Titl	le Ho	urs	Per	w	eek
			C	L	P	QH				C	L	P	OH
FI	RS:	T QUART	ER				TI	IIR	D QUARTE	R			-
BUS	102	Keyboarding	3	2	0	4	BUS	104	Document Production/				
EDP	103	Introduction to							Word Processing	3	2	0	4
		Microcomputing DOS	S 3	0	0	3	BUS	211	Proofreading and Filing	2	0	3	3
ENG 111 Grammar Skills		3	0	0	3	ENG	101	Introduction to					
				2	0	10			Written Communication	3	0	0	3
SE	CC	ND QUAR	RTE	R						8	2	3	10
BUS	103	Document Formatting	g 3	2	0	4	FC	UI	RTH QUAR	LE	CIR	2	
BUS	250	Word Processing/					BUS	105	Advanced Word				
		WordPerfect	1	4	0	3			Processing Applications	3	2	0	4
ENG			3	0	0	3	BUS	240	Word Processing/Word	2	0	3	3
			7	6	0	10	ENG	102	Composition	3	0	0	3
									•	8	2	3	10

CERTIFICATE IN COBOL PROGRAMMING T-022C

COBOL Programming is to provide programming study of the COBOL programming language.

DESCRIPTION:The purpose of the Certificate in logic for program development and an intense

CURRICULUM BY QUARTERS: (36 Total Credit Hours)

				_	-	
Course Tit	le	Hours	Per	· W	eek	Course Title Hours Per Wee
		C	L	P	QH	C L P Q
FIRS	T QUART	ER				THIRD QUARTER
EDP 100	Introduction to					EDP 110 COBOL Programming I 3 2 0 4
	Data Processing	3	2	0	4	BUS Elective 3 0 0 3
EDP 107	Logic and Decision					6 2 0 7
	Making I	3	0	0	3	FOURTH QUARTER
MAT 119	Principles of					EDP 111 COBOL Programming II 4 2 0 5
	Mathematics	5	0	0	5	EDP 210 Mainframe Computer
		11	2	0	12	Operating Systems 3 2 0 4
SECO	OND QUAI	RTE	R			7 4 0 9
EDP 108	Logic and Decision					
	Making II	3	0	0	3	
MAT 117	EDP Mathematics	<u>5</u>	0	0	5	

 $\frac{1}{0}$ $\frac{1}{0}$ $\frac{1}{8}$

CERTIFICATE IN IMAGING TECHNOLOGY-COMPUTERIZED TOMOGRAPHY T-223C

DESCRIPTION:

Individuals entering this curriculum must be registered or registry-eligible radiologic

technologists (by the American Registry of Radiologic Technologists).

Imaging technology, a specialty for radiographers, is an advanced allied health career which prepares the individual to use specialized equipment to visualize the internal body structures and to image the blood vessels. Graduates gain knowledge and skills at an entry level of proficiency in cardiovascular and vascular techniques, computed tomography and magnetic resonance imaging. The imaging technologist works in conjunction with physicians in performing special diagnostic procedures. The technologist, through academic and clinical studies, is prepared to provide patient care while performing the advanced noninvasive/invasive radiographic procedures.

Imaging technologists find employment in hospitals and facilities where vascular/interventional, cardiovascular/interventional, computerized tomography scanning, and magnetic resonance imaging are performed. Responsibilities would include operation of advanced radiographic and other specialty equipment, emergency patient care, professional communication, quality assurance, and radiation protection.

CURRICULUM BY QUARTERS: (20 Total Credit Hours)

Cours	se Titl	e	Hours	Pe	r W	eek
				L	P	QH
FII	RS'	T QUART	ER			
RAD	201	CT Physics and				
		Instrumentation	2	0	0	2
RAD	204	CT Procedures	3	0	0	3
RAD	214	Introduction to				
		CT Imaging	0	0	24	8
			5	0	24 24	13
SE	CC	ND QUAI	RTE	E	2	
(1/:	2 Q	uarter)				
RAD	224	CT Imaging Practicun	14(2)	0	30(15)7
			4(2)	0	30((5)7
					,	

CERTIFICATE IN CUSTOMER SERVICE T-020C (Marketing / Retailing)

DESCRIPTION:

The purpose of the Certificate in Customer Service is to prepare students for employment in positions that interact with customers.

CURRICULU		B	\mathbf{Y}	Q	UA	R7	FERS: (18 Total	Cre	dit F	Iou	rs)
Course Title	Hours	Per	r W	eek	Cours	se Tit	le Ho	ours	Per	w	eek
	C	L	P	QH				C	L	P	QH
FIRST QUART	ER						ED QUARTE	R			
ENG 100 Oral Communication	3	0	0	3	BUS	131	Human Relations Skills				
BUS 232 Sales Development	3	0	0	3	1		in Organizations	3	0	0	3
•	6	0	0	6	EDP	103	Introduction to				
SECOND QUAI	RTE	CR	2				Microcomputing (DOS)	3	0	0	3
BUS 100 Basic Keyboarding	3	0	0	3				6	0	0	6
ENG 111 Grammar Skills	3	0	0	3							
	6	0	0	6							

CERTIFICATE IN DIESEL VEHICLE MAINTENANCE V-013C

CU	RRICULUI	M E	3 7	7 (QI	JARTERS: (53 Total Credit Hours)	
Cours	se Title	Hours	Pe	r W	eek	Course Title Hours Per W	Veek
			L	P	QH	C L P	OH
	RST QUART					FIFTH QUARTER	
DVM	1110 Introduction to Diese	1	0	3	2	DVM 1116 Suspension and Steering 2 0 6	4
DVM	1111 Vehicle Servicing	<u>3</u>	0	3 9	6	DVM 1117 Truck Charging and	7
		4	0	12	8		4
	COND QUAI	RTE	IR			Starting Systems 2 0 6 4 0 12	8
DVM	1112 Basic Electricity	2	0	3	3	SIXTH QUARTER	U
DVM	1113 Air Brakes	2	0	3	3	DVM 1115 Drive Trains 2 0 6	4
WLD	1101 Basic Gas and					DVM 1118 Truck Electrical Systems 1 0 6	3
	Arc Welding	1	0	3	2	3 0 12	7
		5	0	3	8	SEVENTH QUARTER	
TH	IRD QUART	TER					
	1114ADiesel Engines	2	0	6	4	DVM 1120 Diesel Truck	2
	1119 Diesel Fuel Systems	2		6	4		
D 1111	111) Diesel I del Systems	<u>4</u>	0	12	9	Maintenance 2 0 6 3 0 9	4
EO	TIDTII OTIA	ra carrier			0	3 0 9	6
	URTH QUAL				_		
	1114B Diesel Engines	2	0	9	5		
DVM	1121 Truck Air Conditioni	ng <u>2</u>	0	3	3		
		4	0	12	8		

N. C. FUNERAL DIRECTOR CERTIFICATE PROGRAM T-057C

Note:

This academic program is designed to meet specific N. C. State needs. It is not accredited by the American Board of Funeral Service Education. Students graduating from this program are not

eligible to take the National Board Examination, nor any state board examination for which graduation from an ABFSE accredited program is required.

Forsyth Technical Community College/Fayetteville Technical Community College

DESCRIPTION:

The Funeral Director Certificate Program provides students with the opportunity to acquire the funeral directing education necessary to become proficient in basic funeral directing skills.

Graduates of the certificate program will qualify to take the North Carolina Funeral Director's

Examination; and if successful, following a oneyear internship at a North Carolina funeral home, will be awarded a North Carolina Funeral Director's License.

Upon completion of the program, the student will receive a certificate of achievement.

CURRICULU		B	Y	Q	UARTERS: (50 Total Credit Hours)
Course Title	Hours	Per	·W	eek	Course Title Hours Per Wee	k
	C	L	P	QH	C L P Q	H
FIRST QUART	ER				THIRD QUARTER	
BUS 115 Business Law I	3			3	FSE 224F Funeral Home Operations 4 0 0 4	ļ
ENG 100 Oral Communication	1 3	0	0	3	FSE 247F Funeral Counseling 3 0 0 3	,
FSE 101F Introduction to					SOC 103 Sociology <u>3 0 0 3</u>	1
Funeral Service	3	0	0	3	10 0 0 10)
FSE 115F Funeral Service Law	3	0	0	3	FOURTH QUARTER	
	12	0	0	12	EDP 103 Introduction to	
SECOND QUA	RTE	CR			Microcomputing DOS 3 0 0 3	3
BUS 116 Business Law II	3	0	0	3	PSY 254F Grief Psychology 5 0 0 5	į
FSE 121F Funeral Service Prac	ctices 3	0	0	3	8 0 0 8	3
FSE 245F Pathology I	3	0	0	3	FIFTH QUARTER	
PSY 101 Psychology	3	0	0	<u>3</u>	BUS 120 Accounting I 4 3 0 5	j
	12	0	0	12	BUS 200 How to Start Your	
					Own Business $3 \ 0 \ 0 \ 3$	3
					7 3 0 8	į

CERTIFICATE IN IMAGING TECHNOLOGY-MAGNETIC RESONANCE IMAGING T-223M

DESCRIPTION:

Individuals entering this curriculum must be registered or registry eligible radiologic

technologists (by the American Registry of Radiologic Technologists).

Imaging technology, a specialty for radiographers, is an advanced allied health career which prepares the individual to use specialized equipment to visualize the internal body structures and to image the blood vessals. Graduates gain knowledge and skills at an entry level of proficiency in cardiovascular and vascular techniques, computed tomography and magnetic resonance imaging. The imaging technologist works in conjunction with physicians in performing special diagnostic procedures. The technologist, through academic and clinical studies, is prepared to provide patient care while performing the advanced noninvasive/invasive radiographic procedures.

Imaging technologists find employment in hospitals and facilities where vascular/interventional, cardiovascular/interventional, computerized tomography scanning, and magnetic resonance imaging are performed. Responsibilities would include operation of advanced radiographic and other specialty equipment, emergency patient care, professional communication, quality assurance, and radiation protection.

CURRICULUM BY QUARTERS: (21 Total Credit Hours)

Cours	se i iu	ie	Hours	Pel	r w	eek						
C L P												
FIRST QUARTER												
(1/2 Quarter)												
RAD	202	MRI Physics and										
		Instrumentation	4(2)	0	0	2						
RAD	205	MRI Procedures	6(3)	0	0	3						
RAD	215	Introduction to										
		MR Imaging	0	0.2	24(1	2)4						
			(10)5	02	4(12	2)9						

SECOND QUARTER

RAD 225 MRI Practicum 2 0 30 12 2 0 30 12

CERTIFICATE IN MANUFACTURING ENGINEERING TECHNOLOGY T-050C

DESCRIPTION:

MEC 203 Welding Processes PHY 111 Physics-Mechanics

The primary objective of the Manufacturing Engineering Technology curriculum is the training of personnel to assist the engineer or small industry in planning, tooling, operating, servicing, and supervising manufacturing operations. This curriculum provides a basic background of mechanical and related theory, with specific skills in the use of manufacturing and testing equipment. Students are given experiences in operating and servicing machines, accompanied by general education and management courses.

A graduate of this program may qualify for an entry position in one of several manufacturing functions: methods, analysis, production scheduling, quality control, materials testing, plant layout, time study, machine tooling, maintenance, and equipment and instrument work.

The Manufacturing Engineering Technology Certificate program is targeted at persons employed in design and manufacturing-related industries. The primary objective of this program is the development of the student's mechanical analytical abilities required for advancement. The program provides the foundation to handle higher-level technical skills in the ever-advancing technological industrial environment.

CURRICULUM BY QUARTERS: (38 Total Credit Hours) Hours Per Week Course Title Hours Per Week Course Title C L P OH C L P OH FIRST QUARTER FOURTH OUARTER DFT 101 Technical Drafting I 3 2 ENG 101 Introduction to MAT 101 Technical Mathematics I 5 Written Communication 3 MEC 104 Applied Mechanics 5 0 0 0 $\bar{0}$ 8 FIFTH QUARTER SECOND QUARTER MEC 205 Strength of Materials 2 0 4 ENG 100 Oral Communications 3 3 PHY 113 Physics-Electricity 3 0 4 BUS 240 Technical Mathematics II 8 8 THIRD QUARTER

3

CERTIFICATE IN MICROCOMPUTING SYSTEMS TECHNOLOGY T-192C

(General)

DESCRIPTION:

Systems I

EDP 151 Operating Systems II

EDP 154

EDP 152A Financial Spreadsheets Operations I

Microcomputer Communications I

The Certificate in Microcomputer Systems Technology (General) is designed for individuals desiring conceptual knowledge of microcomputer operations in addition to developing skills using a variety of major software application programs. The student must meet the entrance requirements of the Microcomputer Systems Technology curriculum for admittance into the certificate program. A prerequisite to acceptance into the

certificate program is BUS 100 Basic Keyboarding or completion of the keyboarding proficiency. The student may **only** enroll in EDP 102, EDP 103, EDP 104, EDP 150, EDP 152, and EDP 171 before meeting degree requirements.

CURRICULUM BY QUARTERS: (38 Total Credit Hours) **Course Title** Hours Per Week Course Title Hours Per Week C L P QH L P QH C FIRST QUARTER THIRD QUARTER EDP 102 Microcomputer Concepts 3 0 0 EDP 156 Microcomputer Graphics I 0 0 EDP 164 EDP 103 Introduction to Networking I 0 0 Microcomputing DOS 3 0 0 3 EDP 171 Alternative Operating EDP 104B Text Processing I 0 0 3 0 0 Environments I 3 MAT 119 Principles of Mathematics 5 0 0 EDP 275 Hardware/Software 14 0 0 14 Support 0 0 SECOND QUARTER $12 \quad 0 \quad 0 \quad 12$ EDP 150A Data Base Management

0

3 0 0

 $\frac{3}{12} \quad \frac{0}{0}$

3 0 0

3

3

 $\frac{1}{0}$ 12

CERTIFICATE IN REAL ESTATE (Technical Specialty) T-166

DESCRIPTION:

The purpose of the Real Estate (Technical Specialty) curriculum is to provide the prelicensing education requirements needed for real estate salespersons and brokers.

The courses required by the North Carolina Real Estate Commission for prelicensing which are covered in this curriculum are Fundamentals of Real Estate, Real Estate Law, Real Estate Finance, and Brokerage Operations. In addition to these courses, Real Estate Math is also included.

After successful completion of Fundamentals of Real Estate, an individual may make application with the Real Estate Commission to take the prelicensing real estate salesperson examination. After successful completion of all the courses required by the Real Estate Commission, an

individual may make application with the Commission to take the real estate prelicensing broker examination.

Employment opportunities are available in real estate firms as salespersons or brokers as well as a real estate broker in one's own business.

CURRICULUM: (21 Total Credit Hours)

Cours	se Titl	e	Hours	Per	W	eek
			C	L	P	QH
BUS	111	Real Estate Math	3	0	0	3
BUS	162	Fundamentals of Real				
		Estate	5	0	0	5
BUS	164	Real Estate Law	5	0	0	5
BUS	165	Real Estate Brokerage	3	0	0	3
BUS	209	Real Estate Finance	<u>5</u>	0	0	5
			21	0	0	21
BUS	209	Real Estate Finance		0	$\frac{0}{0}$	_



Individuals entering this curriculum must be registered or registry-eligible radiologic technologists (by the American Registry of Radiologic Technologists).

IMAGING TECHNOLOGY DIPLOMA IN VASCULAR/CARDIOVASCULAR INTERVENTIONAL TECHNOLOGY T-223D

DESCRIPTION:

Individuals entering this curriculum must be registered or registry eligible radiologic technologists (by the American Registry of Radiologic Technologists).

Imaging technology, a specialty for radiographers, is an advanced allied health career which prepares the individual to use specialized equipment to visualize the internal body structures and to image the blood vessels. Graduates gain knowledge and skills at an entry level of proficiency in cardiovascular and vascular techniques, computed tomography and magnetic resonance imaging. The imaging technologist works in conjunction with physicians in performing special diagnostic procedures.

The technologist, through academic and clinical studies, is prepared to provide patient care while performing the advanced noninvasive/ invasive radiographic procedures.

Imaging technologists find employment in hospitals and facilities where vascular/ interventional, cardiovascular/interventional, computerized tomography scanning, and magnetic resonance imaging are performed. Responsibilities would include operation of advanced radiographic and other specialty equipment, emergency patient care, professional communication, quality assurance, and radiation protection.

CURRICULUM BY QUARTERS: (69 Total Credit Hours)

Cours	se Titl	e l	Hours	Pe	r W	eek	Course Tit	tle Ho	urs	Pe	r W	eek
			C	L	P	QH			C	L	P	QH
FII	RS:	T QUARTE	CR				THIE	RD QUARTE	R			
ENG	101	Introduction to Written	1				ENG 103	Technical Report Writing	3	0	0	3
		Communication	3	0	0	3	RAD 253	Cardiovascular Imaging	4	0	0	4
RAD	231	Patient Care and					RAD 255	Image Evaluation I	2	0	0	2
		Monitoring	3	0	0	3	RAD 259	Clinical Experience III	0	0	24	8
RAD	235	Equipment						-	9	0	24	17
		Instrumentation	3	0	0	3						
RAD	236	Radiographic					FOU	RTH QUART	CE	CF	2	
		Pharmacology	2	0	0	2	RAD 260	Quality Assurance	3	0	0	3
RAD	239	Clinical Experience I	0	2	21	8	RAD 262	Image Evaluation II	2	0	0	2

11 2 21 19

SECOND QUARTER

BIO	169	Fundamentals of Disease				
		Processes	4	0	0	4
ENG	102	Composition	3	0	0	3
RAD	240	General Vascular Imaging	4	0	0	4
RAD	249	Clinical Experience II	0	0	21	7
			11	0	21	18



escriptions



COURSE DESCRIPTIONS

ACA 100 3 0 0 3 The Microcomputer as a Study Tool

This course is designed to enable a student to become familiar with the microcomputer and commercially prepared software. Prerequisite: None.

ACA 110 3 0 0 3 Study Skills

The objective of this course is to help the student determine achievement levels and learning style, plan learning strategy, and develop learning skills necessary for effective academic success. Opportunity for self-assessment will be provided through standardized tests and individual profile interpretation. A variety of study techniques will be presented with special emphasis on using textbooks properly, taking and organizing notes, making and using flash cards, developing effective examination skills, and library techniques. Prerequisite: None.

AHR 1102 6 0 9 9 Fundamentals of Refrigeration

The course includes identification, selection, and use of hand, measuring and special refrigeration tools; use of power drills, grinders, and pipe threaders; and use of copper tubing, fittings, and tubing fabrication. Also included in the course are physics related to refrigeration; the basic refrigeration cycle; classification, characteristics, and properties of refrigerants; and types, purpose, and principles of operation of compressors, condensers, receivers, and evaporators. The assembly and operation of a basic refrigeration system, leak checking, evacuating, and charging, compressor operational checks, and system trouble analysis are covered. Prerequisite: None.

AHR 1102A 3 0 3 4 Fundamentals of Refrigeration (Part I)

This course is the first of a two-part course and it includes identification, selection, and the use of hand, measuring and special refrigeration tools; use of power drills, grinders, and pipe threaders; and use of copper tubing, fittings, and tubing fabrication. Also included in the course are physics related to refrigeration; the basic refrigeration cycle; classification, characteristics, and properties of refrigerants; and types, purpose, and principles of operation of compressors, condensers, receivers, and evaporators. The

assembly and operation of a basic refrigeration system, leak checking, evacuating, and charging, compressor operational checks, and system trouble analysis are covered. Prerequisite: None.

AHR 1102B 3 0 6 5
Fundamentals of Refrigeration (Part II)
This course is the continuation of AHR
1102A. Prerequisite: AHR 1102A.

AHR 1103 0 12 10 **Domestic and Commercial Refrigeration** The course covers types and operating principles of domestic hermetic units, domestic absorption units, operation and trouble analysis of hermetic electrical components and circuits, repair and maintenance of hermetic units, calculation of heat loads, and equipment selection and system balance. The course covers operating principles, installation, and maintenance of the following: floats, automatic and thermostatic expansion valves, thermostatic and pressure motor controls, heat exchangers, oil separators, driers, suction filters, and minor accessories. Also included are the installation, operation, service, and trouble analysis of the following equipment: walkin coolers, display cases, frozen food cabinets, reach-in cabinets, water coolers, ice makers, multiple compressors, and evaporator system operations. Prerequisite: AHR 1102.

AHR 1103A 3 0 6 5 Domestic and Commercial Refrigeration (Part I)

This course is the first of a two-part course and it covers types and operating principles of domestic hermetic units, domestic absorption units, operation and trouble analysis of hermetic electrical components and circuits repair and maintenance of hermetic units, calculation of heat loads, and equipment selection and system balance. The course covers operating principles, installation, and maintenance of the following: floats, automatic and thermostatic expansion valves, thermostatic and pressure motor controls, heat exchangers, oil separators, driers, suction filters, and minor accessories. Also included are the installation, operation, service, and trouble analysis of the following equipment: walkin coolers, display cases, frozen food cabinets, reach-in cabinets, water coolers, ice makers, multiple compressors, and evaporator system

operations. Prerequisite: AHR 1102A & AHR 1102B.

AHR 1103B 3 0 6 5 Domestic and Commercial Refrigeration (Part II)

This course is the continuation of AHR 1103A. Prerequisite: AHR 1103A.

AHR 1104 5 0 3 6 Air Conditioning Controls I

The course includes theory of electrical and electronic controls; principles of operation, application, connection, and adjustment; use of pressure regulators and electrical thermostats, dual thermostats, heating-cooling thermostats and humidistats, valves, dampers, pilot positioners, and two-position controls. The principles of operation, application, wiring, and adjusting of controls are covered. Prerequisite: None.

AHR 1105 6 0 9 9 Principles of Air Conditioning

The course provides an introduction to air conditioning, psychrometrics, principles of load estimating, applied load estimating, residential and commercial equipment, and balancing the system. Prerequisite: None.

AHR 1106 3 0 0 3 Air Conditioning Controls II

The course covers theory of pneumatic controls, principles of operation, application, connection and adjustment, pressure regulators and pneumatic thermostats, dual thermostats, heating-cooling thermostats, humidistats, valves, dampers and pilot positioners, non-bleed controllers, and two-position controls. The principles of operation, application, wiring, and adjusting of controls are covered. Prerequisite: AHR 1104.

AIB 202 4 0 0 4 Principles of Banking

This course presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may acquire a broad and operational perspective. It reflects the radical changes in banking policy and practice which have occurred in recent years. Topics covered are banks and the monetary system, negotiable instruments, the relationship of the commercial bank to its depositors, types of bank accounts, the deposit function, the payments function, bank loans and investments, other banking services (trust, international, and safe deposit), bank accounting and marketing, external and internal controls, and the public service obligation of banks. Prerequisite: None.

AIB 203 Bank Investments

AIB's bank investments course covers the sources and use of bank funds and the place of investment in the overall scheme of bank operations. Especially important are the relationship of investments to business and the unique functions, advantages, and purpose served by a wide range of securities. Investment terminology is covered in detail. Prerequisite: None.

AIB 205 4 0 0 4 Bank Management

This course presents new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. It should be noted that the course is not one of personnel management but rather of business management. It touches on objectives, planning, structure, control, and the interrelationship of various bank departments. Since case study is becoming well established as an effective management learning technique, the course also uses illustrative cases. Prerequisite: None.

AIB 209 4 0 0 4 Installment Credit

This course emphasizes the pragmatic "howto" details of installment credit. Topics covered are principles of credit evaluation, open-end credit, marketing bank services, collection policies and procedures, legal aspects, financial statement analysis, direct and indirect installment lending, leasing and other special situations, installment credit department management, insurance and rate structure, and yields. Prerequisite: None.

AIB 210 4 0 0 4 Money and Banking

This course presents the basic economic principles most closely related to the subject of money and banking in a context of topics of interest to present and prospective bank The course stresses the management. practical application of the economics of money and banking to the individual bank. Some of the subjects covered include structure of the commercial banking system; the nature and functions of money; banks and the money supply; cash assets and liquidity management; bank investments, loans, earnings, and capital; the Federal Reserve System and its policies and operations; Treasury Department operations; and the changing international monetary system. Prerequisite: None.

4 0 0 4

Savings and Time Deposit

This course reflects recognition of the fact that a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process are necessary to an understanding of the current operations and policies of these institutions. It begins with a review of the economics of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital information. Different types of financial savings are reviewed in order to describe the system of financial flow from income to capital investment. Also covered are interest rates, types of savings accounts, and the management of savings institutions (asset management, operations control, supervision, liquidity, and marketing). Prerequisite: None.

AIB 233 4 0 0 4 Analysis of Financial Statements

This course is divided into two main sections: characteristics of financial statements and financial statement analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis. (It should be emphasized, however, that Analysis of Financial Statements is an advanced course and difficult for students with little background in accounting.) The second section of the course covers goals, methods, and tools of analysis; analysis of profit and loss, accounts receivable, inventories, and balance sheets; the relationship of balance sheet accounts to sales and to projected statements and cash budgets. Prerequisite: BUS 120.

AIB 235 3 0 0 3 Loan and Discount

This course presents the essential facts about promissory notes, including calculating interest and discounting commercial paper; guaranties; general collateral agreements; examining and processing documents accompanying notes secured by stocks, bonds, and savings account passbooks; and the concepts of attachment, perfection, priority, default, and foreclosure. The course uses programmed instruction and several simulation exercises. Prerequisite: None.

AIB 236 4 Trust Functions and Services

This course provides an overview of many of the generally accepted principles of the law of estates, trusts, and agencies as it takes the student on a step-by-step study of trust functions and services encountered in the daily operation of a trust department. Prerequisite: AIB 202.

AIB 237 4 0 0 4

International Banking

This course presents the basic framework and fundamentals of international banking: how money is transferred from one country to another, how trade is financed, what the international agencies are and how they supplement the work of commercial banks, international lending, and how money is changed from one currency to another. Prerequisite: None.

AIB 238 4 0 0 4 Law and Banking

This course is designed not only to present an introduction to basic commercial law, but to relate it more specifically to banking and bank transactions. Topics include contracts, agency and partnerships, corporations, real property, personal property and sales, the Uniform Commercial Code, negotiable instruments and bank collections, and secured financing. Prerequisite: None.

AIB 239 4 0 0 4 Marketing for Bankers

This course presents marketing as a broad concept, far more complex than public relations, advertising, and personal selling, which are important components of marketing but are not individually or collectively the equivalent of marketing. It is designed for bankers who are unacquainted with marketing and deals with concepts and philosophies of marketing, marketing information, research, and target; the marketing mix (product strategy, distribution strategy, advertising and sales promotion, personal selling, and pricing strategy); and the methods of marketing planning. Prerequisite: None.

ARC 104 2 0 0 2 Architectural Materials and Methods I

This course emphasizes materials used in residential construction. Field trips to construction sites and study of manufacturer's literature and specifications for materials, properties, standard sizes of materials, and construction techniques are included. Prerequisite: None.

ARC 105 3 0 0 3 Architectural Materials and Methods II

This course emphasizes materials used in the construction of commercial structures. Field trips to construction sites and study of manufacturer's literature and specifications for materials, properties, standard sizes of materials, and construction techniques are included. Prerequisite: None.

ARC 106 2 0 6 4 Architectural Drafting I

This course is designed to provide fundamental knowledge of the principles of drafting. Basic skills and techniques of drafting include use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, and orthographic instrument drawings of principal views. Projection problems dealing with principles of descriptive geometry involving points, lines, planes, connectors, and the principles of planning drafting are introduced. Prerequisite: None.

ARC 107 2 0 6 4 Architectural Drafting II

This course develops techniques in architectural lettering, symbols and their interpretation, dimensioning and freehand, and instrument drafting. Drawings of construction details, using appropriate material symbols, connections, sections, scale details, and full-size details are prepared from preliminary sketches. Applications of descriptive geometry used in visualization and analytical solutions of the drafting problems involving auxiliary views, intersections, and developments are also included. Prerequisite: ARC 106 or by permission of department chairperson.

ARC 108 0 0 9 3 Architectural Drafting III

This course includes the development of design and programming skills applied to realistic situations and the introduction to rendering and projections. Prerequisite: ARC 107 or by permission of department chairperson.

ARC 109 3 0 3 4 Architectural Mechanical Equipment

The course provides general study of heating, air conditioning, plumbing and electrical equipment, materials and symbols, building code requirements pertaining to residential and commercial structures, reading and interpretation of working drawings by mechanical engineers, and coordination of mechanical and electrical features with

structural and architectural designs. Prerequisite: None.

ARC 150 2 0 6 4 Site Planning

This course provides an introduction to factors influencing placement of buildings on sites and specific analysis of sites in terms of solar, topographic, use, and wind characteristics. Field work in surveying is also included. Prerequisite: None.

ARC 160 3 0 0 3 Elementary Structures for Architects and Builders

Elementary Structures for Architects and Builders covers the essential topics in statics and mechanics of materials and provides a sound introduction to structural analysis. This course will cover the use of structural analysis and building design as well as the basic relationships between structures and architectural form. Prerequisite: PHY 111.

ARC 181

3 0 0 3

History of Architecture and Construction
This course covers the evolution of building
development from primitive to modern and
the history of architectural construction and
design. The principal periods studied include
Prehistory, Ancient Egypt and Mesopotamia,
Greece, Rome, Romanesque, Gothic,
Renaissance, and Early American.
Prerequisite: None.

ARC 219 2 4 0 4 Architectural Portfolio

This course is designed to define employment opportunities available to architectural technology graduates. Additionally, preparation of marketing materials and presentation strategy will be discussed. Prerequisite: None.

ARC 220 2 0 9 5 Architectural Drafting IV

This course covers the drawing of structural plans and details as prepared for building construction, including steel, concrete, and timber structural components. Appropriate details and drawings necessary for construction and fabrication of structural members and reference materials used to provide the draftsman with skills and knowledge in locating data and in using handbooks are also included. Prerequisite: ARC 108 or by permission of department chairperson.

ARC 221

Architectural Drafting V

This course provides an in-depth approach to the study of architectural drafting, continuing the study of details of construction, and introducing the elements of mechanical and electrical equipment systems and their relationship to a finished building. Prerequisite: ARC 220.

ARC 222 5 **Architectural Drafting VI**

The preparation of the complete set of working drawings for the architectural structure, the preparation of millwork drawings, cabinets and built-in equipment detail drawings, and door, window, and room schedules are required. Site and landscaping plans are studied and drawn. A final assembly of the complete document for construction purposes is required. Prerequisite: ARC 221.

ARC 235 Codes, Specifications, and Contract Documents

Building codes and their effect in relation to specifications and drawings, the purpose and writing of specifications are studied, along with their legal and practical application to working drawings. Contract documents are analyzed and studied for the purpose of clientarchitect-contractor responsibilities, duties, and mutual protection. Prerequisite: None.

ARC 236 Construction Estimating and Field Inspecting

This course provides an interpretation of working drawings for a project, preparation of material and labor quantity surveys from plans and specifications, and approximate and detailed estimates of cost. A study of materials takeoff, labor takeoff. subcontractor's estimates, overhead costs. and bid and contract procedures, and a detailed inspection of the construction by comparing finished work to the specifications are also included. Prerequisite: None.

ART 150 5 0 0 5 **Art Appreciation**

This course is designed as an introduction to the visual arts. It is structured to make the student aware of the role of art in the history of civilization by introducing some of the major monuments of world art. Students are encouraged to expand their knowledge of how various style periods fit into a historical context, and to develop the ability to discern content expressed through art. Questions of aesthetic and design qualities, purpose, meaning, and historical significance are considered in undertaking to broaden and deepen individual appreciation of artistic endeavor. Prerequisite: None.

AUT 1111 0 15 **Automotive Body Repair I**

The course includes the basic principles of automobile construction, design, and manufacturing; a thorough study of angles, crowns, and forming of steel into the complex contour of the present-day vehicles; and the application of basic principles of straightening, aligning, and the spraying of primer surfacer. Prerequisite: None.

AUT 1112 15 8 **Automotive Body Repair II**

The course provides a thorough study of the requirements of a metal worker including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders. Metal working and the spraying of primer surfacer are also covered. Prerequisites: AUT 1111. Corequisite: WLD 1130.

AUT 1113 0 12 6 Metal Finishing and Painting

This course is intended to teach the student the principles and techniques of refinishing auto bodies. Topics covered are paint removal, masking, preparing surfaces, paint selection, spray equipment, and practice spraying. Prerequisite: AUT 1112 and WLD 1131.

AUT 1114 Frame Straightening and Alignment

This course is an introduction to the repair of automobile frames and suspension systems. Instruction will include assessing frame damage, framing, frame straightening equipment, safety, frame straightening, frame repair, and unibody. Prerequisite: AUT 1112.

AUT 1116 0 21 10 **Automotive and Truck Painting**

This course is intended to give the student practice in surface preparation and paint application. The following topics will be covered: review of finishes, surface preparation, undercoats, topcoats, and common painting problems. Prerequisite: AUT 1114.

This course is an introduction to DC electricity. Emphasis will be placed on testing basic DC circuits with a DVOM, a 12v test light and a jumper wire. Testing of the battery, cranking system, charging system and related electrical components will be taught. Prerequisite: None.

3 3

AUT 1131 2 2 0 3 Introduction to Automobile and Shop Equipment

This course is a general introduction to the automobile, the shop area, shop equipment, and safety. Careers in automotive, basic hand tools, precision measuring tools, test equipment, fasteners, gaskets and reference manuals will also be covered. The student will also learn how to conduct a safety inspection and what the operating procedures of a safety inspection station should be. It will include how to properly fill in reports and how to become licensed. Prerequisite: None.

AUT 1132 Automobile Fuel Systems and Carburetors This is a course on how the internal combustion engine uses gasoline as a fuel. The total fuel system with special emphasis on the six basic circuits of the carburetor will be discussed. Prerequisite: None.

AUT 1133 2 0 6 4 Automobile Brake Systems

This course includes a complete study of drum and disc brakes: their components, operation, and repair. A study of the hydraulic system including overhaul or repair to master cylinders, wheel cylinders, disc brake calipers, and all connecting hydraulic components will be covered. Also included will be information on asbestos, its hazards, how to safely handle it and how to properly collect and dispose of its wastes. The operation and repair of new anti-lock brake systems will be discussed. Prerequisite: None.

AUT 1135 2 0 6 4 Automobile Cranking, Charging, and Motor-Operated Systems

Instruction in the course deals with the operation and repair of the cranking system, charging system (including regulators), and all other motor operated systems on an automobile. Prerequisite: None.

AUT 1136 Automotive Electronics

This course deals with automotive electricity and electronics. Discussed in detail will be semi-conductors and how they are made, principles of operation, and how they can be applied in the control circuits on the automobile. Diagnosis and repair of these circuits will also be covered. Prerequisite: AUT 1130 or by permission of department chairperson.

0 3 2

AUT 1137 1 0 3 2 Automobile Electronic Fuel Injection

This course is designed to give the student the basic knowledge needed to service a fuel injection system. The course includes the theory of operation of the modern EFI systems, diagnosis of EFI problems and servicing. Prerequisite: None.

AUT 1138 2 0 6 4 Automobile Chassis and Suspension

This course covers the principles, functions, diagnosis and repair of all types of automobile suspension and steering systems. Prerequisite: None.

AUT 1139 2 0 6 4 Engine Performance with Diagnostics

The material contained in this course covers breaker point, electronic, and distributorless ignition systems. Electronic engine controls, electronic engine control testing, and oscilloscope testing are included. The testing of the engine for mechanical soundness and for proper fuel mixture will also be covered. Prerequisite: None.

AUT 1140 1 0 3 2 Automobile Wheel Alignment

This course covers the theory of all of the principles of suspension geometry including all adjustable and nonadjustable alignment angles. Also covered are the types of vehicle alignments and the operation of various types of alignment equipment. Prerequisite: None.

AUT 1141 2 0 6 4 Standard Transmissions, Transaxles, and Drive Trains

This course will discuss the theory of operation and repair of standard, 4-speed, 4-speed overdrive transmission and transaxles in rear-wheel and front-wheel drive automobiles. Theory of operation of the clutch and related components will be discussed. All types of drive line components and axles, their operation and repair will be covered. Prerequisite: None.

 $2 \quad 0 \quad 3 \quad 3$

Automotive Air Conditioning

This course is a general introduction to the principles of air conditioning and the refrigeration system. Each component in the refrigeration system, its purpose, diagnosis, and repair will be studied. The servicing (evacuation and charging) of all types of automobile refrigeration systems will be covered with special emphasis on the new refrigerant recovery systems. Prerequisite: None.

AUT 1143 2 0 6 4
Basic Engine Operation and Repair

This course will cover the basic operation and repair of the internal combustion reciprocating engine. The course will include machine work as well as assembly and partial repair such as valve jobs and timing components. Prerequisite: None.

AUT 1144 2 0 3 3 Automotive Emission Controls

This course deals with the automotive emission control system and the effect of automotive emissions on the environment. The theory of operation of all emission control systems, their effect on the pollutants emitted from the automobile, and the diagnosis and repair of these systems will be studied. Prerequisite: None.

AUT 1145 1 0 3 2 Automatic Transmission Servicing

This course will include the theory of basic automatic transmission and torque converter operation. The proper way to service these units including fluid change, band adjustment, linkage adjustment, and replacement of external components will be covered. Prerequisite: None.

BIO 010 5 0 0 0 Human Anatomy

This course is designed to acquaint students with basic knowledge of human anatomy by tracing system pathways. The student may also gain proficiency in medical and biological terminology. Prerequisite: None.

BIO 101 3 2 0 4 General Biology I

This is a functional course in biology with emphasis on scientific reasoning, cellular structure and function, human anatomy and physiology, and the diversity of living organisms. Prerequisite: None. BIO 102

3 2 0

General Biology II

This is a continuation of BIO 101 with emphasis on reproduction and development, inheritance, ecological principles, and evolution by natural selection. Prerequisite: BIO 101.

BIO 107 3 2 0 4 Anatomy and Physiology I

This is an introduction to normal structure and function of the human body. When relevant, clinical applications are made to relate normal structure and function to basic pathological conditions. Students are given the opportunity to employ their assimilated knowledge in class discussion and laboratory work. Laboratory participation introduces additional information which the student gains by participating in various lab exercises and learning experiences. Prerequisite: High school chemistry or CHM 010.

BIO 108 3 2 0 4 Anatomy and Physiology II

This is a continuation of BIO 107, Anatomy and Physiology I, with emphasis on the vascular system, respiratory system, digestive system, urinary system, fluid and electrolyte balance, endocrine system, and reproductive system. Prerequisite: BIO 107.

BIO 111 3 2 0 4 Microbiology

This is a one-quarter course designed to provide an understanding of microbiological principles and applications. Emphasis is placed on microbial classifications, structure and function, host-parasite relationships, and relations to man. Laboratory sessions are concerned with principles of identification, slide techniques, culture methods, and sterile procedures. Prerequisite: BIO 108.

BIO 112 3 0 0 3 Pathology

Pathology is a one-quarter course designed to introduce the students to the study of the disease processes in the human body. Emphasis will be placed upon the cause, pathogenesis, occurrence, and prognosis of common human diseases. Prerequisites: BIO 111 and enrolled in fourth quarter of curriculum or by permission of BIO 112 instructor.

BIO 115 1 0 0 1 Medical Terminology I

This is the first of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital

service, and paramedical specialties. Terms introduced parallel the topics covered in BIO 107, Anatomy and Physiology I. Prerequisite: None.

BIO 116 1 0 0 1 Medical Terminology II

This is the second of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service, and paramedical specialties. Terms introduced parallel the topics covered in BIO 108, Anatomy and Physiology II. Prerequisite: BIO 115.

BIO 120 3 2 0 4 Principles of Biology I

A study of the basic principles and concepts of living organisms with emphasis on the chemistry of life, structure and function of the cell, metabolism, cellular respiration, photosynthesis, protein synthesis, and genetics. Prerequisite: High school chemistry or CHM 010.

BIO 121 3 2 0 4 Principles of Biology II

A study of the basic principles and concepts of evolution along with the study of structure and function of the animal kingdom with emphasis on transport, digestion, gas exchange, homeostasis, regulation and reproduction. Prerequisite: BIO 120.

BIO 122 3 2 0 4 Principles of Biology III

A study of the basic principles and concepts of ecology, and plant and animal diversity, along with the structure and function of the plant kingdom. Prerequisite: BIO 121.

BIO 169 4 0 0 4 Fundamentals of Disease Processes

The student is introduced to the major processes involved in producing pathological entities and disorders in man and how such states interfere with normal physiology. After this knowledge of diseases and abnormal states is acquired, it is correlated with the more commonly seen pathology in clinical practices. Emphasis will then be placed upon the fundamental principles of microbiology, the relationship of microorganisms to disease, modes of transmission, control, and the etiological agents of infectious diseases. Prerequisites: BIO 107 and BIO 108.

BIO 201 3 2 0 4

General Zoology
This course is designed to further the

This course is designed to further the concepts

of zoology as covered in BIO 120, 121, and 122. Emphasis is placed on animal classification, habitat, and ecological relationships. Prerequisite: BIO 122.

BIO 205 3 2 0 4 General Botany

This course is a study of the plant kingdom with emphasis placed on plant classification, morphology, life histories, and ecological principles. Prerequisite: BIO 122.

BUS 010 5 0 0 0 Pretechnical Accounting

This course is designed to present an overview of the complete bookkeeping cycle including journalizing, posting, summarizing, preparing financial statements, and the closing of books. Prerequisite: None.

BUS 030 5 0 0 0 Introduction to Shorthand

This course provides for the introduction to basic shorthand theory, dictation of practiced materials and transcription skills, and development of a fluent reading rate. This is an introduction to BUS 106 Shorthand I. Prerequisite: None.

BUS 100 3 0 0 3 Basic Keyboarding

Basic Keyboarding is an introduction to the touch typewriting system on the microcomputer with emphasis on correct techniques, alphabetic data entry, numeric data entry using the ten-key numeric pad, and proofreading procedures. Prerequisite: None.

BUS 101 5 0 0 5 Introduction to Business

A survey of the business world is presented in this course with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management. Prerequisite: None.

BUS 102 3 2 0 4 Keyboarding

Keyboarding is an introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

BUS 103 3 2 0 4

Document Formatting

The development of speed and accuracy with further mastery of correct typewriting techniques is the objective of Document Formatting. These skills and techniques are acquired by completing typing projects that include tabulation, manuscripts, correspondence, and business forms. Prerequisite: BUS 102 or the equivalent.

BUS 104 3 2 0 4
Document Production/Word Processing

This course emphasizes production typing problems and speed building. Attention is given to the development of the student's ability to function as an expert typist, producing mailable copies. Documents may be produced at the typewriter or word processor. The production units are tabulation, manuscripts, correspondence, and business forms. Prerequisites: BUS 103 and BUS 250 or BUS 103 and EDP 104B and EDP 114B.

BUS 105 3 2 0 4
Advanced Word Processing Applications
Advanced Word Processing Applications is
a continuation of production typing problems
and speed building through an office
simulation practice set. Mailable copies are
required. Prerequisite: BUS 104 or the
equivalent.

BUS 106 3 2 0 4 Shorthand I

This is a beginning course in the theory and practice of reading and writing shorthand. It emphasizes phonetics, penmanship, word families, brief forms, and phrases. Prerequisite: None.

BUS 107 3 2 0 4 Shorthand II

This course is a continued study of theory with emphasis on speed in dictation and accuracy in transcription. A minimum dictation rate of 60 words per minute is required. Transcription may be done at the typewriter or the word processor. Prerequisites: BUS 106 or the equivalent and BUS 250.

BUS 108 3 2 0 4 Shorthand III

This course is a continuation of theory and speed building as well as an introduction to office-style dictation. The development of speed in dictation to a minimum dictation rate of 80 words per minute and mailability are the objectives of this course. Prerequisite: BUS 107 or the equivalent.

BUS 109 5 0 0 5
Business Mathematics
Business Mathematics emphasizes

fundamental mathematical operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

BUS 111 3 0 0 3 Real Estate Math

This course is designed to give students an overview of important topics in real estate mathematics. Topics covered are operations of arithmetic, percents, fractions, measurements, mortgages math, and appraisal math. Prerequisite: None.

BUS 112 3 2 0 4 Machine Transcription I

This course is the first of three courses designed to introduce and develop skills in machine transcription. Skills are developed in operating a transcribing unit and in word processing. Prerequisites: BUS 103, BUS 250, and ENG 102.

BUS 113 3 0 0 3 Vocabulary/Terminology I

This course is designed to develop an understanding of the terminology and vocabulary used in business, technical, and professional offices. Prerequisite: None.

BUS 114 3 0 0 3 Vocabulary/Terminology II

As a continuation of BUS 113, Vocabulary Terminology I, this course emphasizes terminology and vocabulary in the business environment with special emphasis on medical and legal professions as well as word processing. Prerequisite: BUS 113.

BUS 115 3 0 0 3

Business Law I
This course is desi

This course is designed to provide the student an opportunity to learn basic fundamentals of business law including the judicial system, contract law, sales and consumer protection laws. Prerequisite: None.

BUS 116 3 0 0 3 Business Law II

This course is designed to provide the student an opportunity to learn basic fundamentals of business law including property, commercial paper, insurance, secured transactions, bankruptcy, agencies, employment, emerging trends and issues. Prerequisite: BUS 115.

BUS 118 4 0 3 5 Secretarial Accounting I

This course is the first of two courses designed

specifically for Administrative Office Technology majors to study the principles, practices, and tools of the accounting process as encountered in the secretarial profession. Prerequisite: BUS 109.

BUS 119 4 0 3 5 Secretarial Accounting II

This course is the second of two courses designed to further develop skills in accounting as needed by Administrative Office Technology majors. The principles defined in BUS 118, Secretarial Accounting I, are broadened and put to use through workbook problems and a practice set. Prerequisite: BUS 118.

BUS 120 4 0 3 5 Accounting I

This course is a study of the principles, techniques, and tools of the accounting process. The areas of instruction include the collecting, summarizing, analyzing, and reporting of financial information with emphasis on the application of the principles learned. Prerequisite: None.

BUS 121 4 0 3 5

Accounting II

This course concentrates on the application of the procedures involved in the recording of receivables, payables, inventories, deferrals, accruals, plant assets, and payrolls. Prerequisite: BUS 120.

BUS 122 4 0 3 5 Accounting III

This course expands the principles and concepts set forth in BUS 120, Accounting I and BUS 121, Accounting II. Manufacturing and job order cost systems, budgetary control, and standard cost systems are major areas of instruction. Additional attention is given to the decision-making process as determined from cost and revenue relationships, management reports, changes in financial position, consolidated statements, and financial statements. Prerequisite: BUS 121.

BUS 123 5 0 0 5 Business Finance

This course is a study of the principles and problems of financing business firms. Topics included in instruction are source and use of funds, cost of capital, dividends, leasing, financial statement analysis, and mergers. Prerequisite: BUS 122.

BUS 128 5 0 0 5 Personal Financial Management

This course covers the basic concepts of personal finance. The student will become familiar with establishing financial objectives, investment risks, financial institutions, investment alternatives, making investment decisions, and estate planning. Prerequisite: None.

BUS 131

Human Relations Skills in Organizations
This course is a study in how to plan a career, get a job, and become an effective employee through knowledge of and skill in human relations. The student will study these skills through case studies, projects, role playing, lectures, and guest speakers who have expertise in human relations techniques. Prerequisite: None.

BUS 141 3 0 0 3 Medical Vocabulary and Terminology

This course provides students with a means to develop an understanding of vocabulary and terminology for clerical employment opportunities in the medical field. Prerequisite: None.

BUS 162 5 0 0 5 Fundamentals of Real Estate

This course consists of instruction in fundamental real estate principles and practices, including real estate law, financing, brokerage, closing, valuation, management, and taxation. Instruction is included on residential building construction, property insurance, land use, the real estate market, the North Carolina Real Estate License Law and Rules/Regulations of the North Carolina Real Estate Licensing Board. Prerequisite: None.

BUS 164 5 0 0 5 Real Estate Law

This is a survey course of law as it relates to real estate activities including the legal aspects pertaining to the sale, purchase, and management of real property. Special emphasis is placed on the legal steps needed to handle real estate transactions from the preparation of the listing contract to the closing statement. Prerequisite: None.

BUS 165 3 0 0 3

Real Estate Brokerage

This course consists of basic instruction in the various aspects of real estate brokerage operations, including establishing a brokerage firm, management concepts and practices, personnel and training, marketing operations, records/bookkeeping systems (including trust account bookkeeping), and financial operations. Prerequisite: BUS 162.

BUS 190 3 0 0 3 Horticultural Business Management

This course is designed to instruct students on how to set up a small business in the area of horticulture. The student will learn various concepts of business management, planning, decision making, and leadership. Prerequisite: None.

BUS 200 3 0 0 3 Starting Your Own Business

This course is designed to teach the student how to develop a comprehensive business plan. The student will learn how to define the business, make the basic decisions needed to begin a business and develop a business plan for the first six months of operation. Prerequisite: None.

BUS 206 2 0 3 3

Dictation/Transcription

This course is a continuation of theory with emphasis on speed building in dictation, mailability in transcription, and office-style dictation. A minimum dictation rate of 100 words per minute is required. Prerequisite: BUS 108.

BUS 209 5 0 0 Real Estate Finance

This course is a study of real estate finance, including an analysis of financial institutions, techniques, and instruments necessary in real estate. Topics of instruction include the source of funds, types of mortgages, roles of government agencies, interest rates, loan costs, closings, and competition in the money market. Prerequisite: None.

BUS 210 5 0 0 5 Business Statistics

This course is designed to introduce students to basic concepts and methods of statistics. Students are taught to summarize data and then employ a decision-making process based on statistical inference. Prerequisite: None.

BUS 211 2 0 3 3 Proofreading and Filing

This course is designed to give introductory instructions in proofreading, filing, ten-key touch, and using a reference manual. Prerequisites: BUS 102 and BUS 250 or EDP 104B.

BUS 212 3 Machine Transcription II

This course is the second of three courses designed to introduce and develop skills in machine transcription. Skills in punctuation, spelling, and typing styles are developed through direct transcription from oral dictation to mailable printed form. Transcription may be done on the typewriter or word processor. Prerequisite: BUS 112.

2 0 4

BUS 213 2 0 0 2 Filing

This course covers the fundamentals of indexing and filing, combining theory and practice by use of miniature letter, filing boxes, and guides. The course includes alphabetic, numeric, and geographic filing as well as records control. It can also be taken in the Individualized Learning Center. Prerequisite: None.

BUS 214 5 0 0 5 Administrative Office Procedures

This course is designed to acquaint the student with the responsibilities encountered by an administrative assistant during the workday. The areas of instruction are receptionist's duties, handling the mail, telephone techniques, travel information, telecommunications, office records, purchasing of supplies, and office organization. Prerequisites: BUS 104 and ENG 102.

BUS 215 3 2 0 Machine Transcription III

This course is the third of three courses designed to introduce and develop skills in machine dictation and transcription. Skills are developed by the operation of dictating, transcribing, and word processing equipment. Prerequisite: BUS 212.

BUS 216 3 0 0 3 Real Estate Sales

This course is a study of the current sales techniques in the real estate industry, including problems in selling as well as emphasis on consumer motivation and reactions. Particular emphasis is placed on morals and ethics related to the sale of real property. Other topics include the methods of securing property listings and prospective customers, bringing the prospect and property together, the use of advertising in the selling function, the basic development of a sales plan, and sales presentation. Prerequisite: None.

BUS 221

0 0 5

Intermediate Accounting I

This course is a thorough treatment of the field of general accounting providing a foundation for specialized studies that follow. The course includes the framework of accounting, the balance sheet, income and retained earnings statements, cash, temporary investments, receivables, and inventories. Prerequisite: BUS 122.

BUS 222 0 0 5 **Intermediate Accounting II**

This course is designed to familiarize the student with the objectives of accounting and the principles that have evolved in response to the objectives. The course includes inventories, estimating and valuation, current liabilities, fixed assets, intangible assets, long-term investments, bonds, leases, and pensions. Prerequisite: BUS 221.

BUS 224 4 **Advanced Accounting**

A study of advanced principles and practices with special emphasis on the development of worksheet techniques for solution of problems. Accounting and reporting for consolidations and not-for-profit organizations are studied in detail. Prerequisite: BUS 227.

BUS 225 Managerial Cost Accounting I

This course is a study of the principles, techniques, and tools of the cost accounting processes within the job cost and process cost system. Instruction emphasizes the application of principles learned. Prerequisite: BUS 122.

BUS 226 Managerial Cost Accounting II

This course is a continuation of BUS 225, Managerial Cost Accounting I, with emphasis on standard cost principles and procedures, selling and distribution costs, direct costs, budgets, and executive use of cost figures. Prerequisite: BUS 225.

BUS 227 5

Intermediate Accounting III

This course is designed to familiarize the student with the objectives of accounting and the principles that have evolved in response to the objectives. The course includes leases, paid in capital, retained earnings, book value and earnings per share, accounting changes and correction of errors, statement from incomplete records, the statement of changes in financial position. and financial statement analysis. Prerequisite: BUS 222.

BUS 228 0 0 3 Real Estate Investment and Taxation

This course is a study of fundamental investment concepts such as location, timing, and methods of financing needed by the prospective investor for successful real estate investment. Special emphasis will be placed on investment during the development process, what to buy, and how to buy. Other topics to be discussed include how to take title for individual ownerships or partnerships, when to invest in real estate corporations and trusts, tax consequences and investment, and the influence of federal and state laws on real estate investments. Prerequisite: None.

BUS 229 3 3 **Taxes**

This course is a study and application of federal and state taxes as applied to individuals, partnerships, and corporations. The major emphasis is on the preparation of individual income tax returns. Prerequisite: None.

BUS 230

Advanced Taxes

This course is a study and application of federal and state taxes as applied to individuals, partnerships, corporations, "Subchapter S" corporations, and estate and gift taxes. Prerequisites: BUS 121 and BUS 229.

BUS 231 3

Real Estate Merchandising

This course is a survey of the field of real estate advertising with emphasis on the relationship to the market structure of our economy. Prerequisite: None.

BUS 231D

Taxes for Paralegals

(Paralegal Technology) A continuation of study of federal income taxes; income tax withholding; declaration of estimated tax by individuals; preparation of income tax returns for individuals, partnerships, corporations, and fiduciaries. An introduction to property taxes, intangible taxes, sales and use taxes, and N.C. State income taxes. Prerequisite: BUS 229.

3 **BUS 232**

Sales Development

This course is a study of retail, wholesale, and specialty selling. The emphasis is on

mastering the fundamentals of selling. The preparation and execution of a sales demonstration are required. Prerequisite: None.

3 0 3 **BUS 233 Personnel Management**

Personnel management is the study of the principles of organization and the management of personnel. Specific areas of study include procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits, and security. Prerequisite: None.

BUS 234 3 Sales Management

This course is a continuation of BUS 232, Sales Development. Prerequisite: BUS 232.

BUS 235 0 0 **Business Management**

This course is an introduction to the concepts of business and organizational management. Through study in such areas as planning and decision making, organizational structures and behavior, leadership, motivation, and resources control, the student will acquire the skills to analyze and practice good management procedures. Prerequisite: None.

BUS 236 Land Development

This course is a study of land and population economics, land utilization, and the development factors related manufacturing, labor, transportation, and commerce in or near the development location. Prerequisite: None.

BUS 238 Land Use Policy and Governmental Influences on Real Estate

This course is a study of local and national trends in the development, use, and value of real property, as well as governmental policies and their effect on the real estate market. Skills are developed in the analysis, research, and correlation of the various trends, policies, and factors affecting real estate. Prerequisite: None.

BUS 239 Marketing

This course is a study of the principles and problems of marketing goods and services in a free enterprise economy. Topics of instruction include product selection and development, promotion, channels of distribution, and pricing. Prerequisite: None. **BUS 240** Word Processing/Word

This is an introductory course designed to instruct the student in the use of a microcomputer to create, edit, store, and print text. In addition to using the equipment, the student will study basic word processing terminology and work flow. Prerequisite: BUS 102.

BUS 242

Visual Merchandising

This course is an introduction to basic layout and design of internal commercial displays in retail stores and service institutions. Prerequisite: None.

BUS 245 Advertising Using Desktop Graphics

This course is a study of methods and techniques used by advertisers. Some of the topics covered are advantages and disadvantages of using different types of print and broadcast media, planning advertising strategy based on target market and budget, and principles of layout and design for print media. Class activities emphasize designing copy for newspapers, brochures, fliers, signs, and newsletters using the microcomputer. Prerequisite: EDP 103.

BUS 247 Business Insurance

This course is a presentation of the basic principles of risk insurance and their application as well as a survey of the various types of insurance. Prerequisite: None.

BUS 250 Word Processing/WordPerfect

This course is designed to instruct students in using a word processing system for creating, editing, printing, and storing documents. Through the use of a training workbook, students will learn to produce mailable business documents. Prerequisite: BUS 102.

BUS 262 3 2

Fashion Merchandising

This course is designed to acquaint the student with fashion, characteristics of style, trends, coordination of color, and design analysis. Prerequisite: None.

BUS 263 Retailing I

This course is a study of the role of retailing in our distribution system. Topics of instruction include the development of present retail practices, functions performed, principles governing effective operation, and

managerial problems resulting from current economic and social trends. Prerequisite: None.

BUS 264 3 0 Retailing II

A continuation of BUS 263, Retailing I. Prerequisite: BUS 263.

BUS 269 3 2 0 4 Auditing I

Auditing is a study of the theory and practices of auditing, including professional standards and rules of conduct. The student will learn the specific techniques of auditing various balance sheet accounts and comparative analysis using rapid calculation procedures. Study will also include detailed audits, internal auditing, and internal control as well as current trends in statement preparation. Prerequisite: BUS 222.

BUS 270 3 2 0 4 Auditing II

This course is a continuation of BUS 269, Auditing I. The emphasis will be on the preparation of audit programs, the application of auditing procedures, the various types of auditors' reports, and other attestation and accounting services. Students will also be required to prepare an audit practice set. Prerequisites: BUS 227 and BUS 269.

BUS 272 3 0 0 3 Principles of Supervision

This course is a study of the basic responsibilities of the supervisor and his relationship to supervisors, subordinates, and associates. The methods of supervision and problem-solving techniques are presented through the case study method. Prerequisite: None.

BUS 280 3 0 0 3 Microcomputer Accounting Applications: General Ledger

This course is designed for any student interested in learning to use a general ledger accounting package on the microcomputer. Topics to be covered include chart of account design, transaction entry, posting, closing, correcting, and report generation. Additionally, the relationship of the general ledger to other accounting functions will be covered. Microcomputer simulations will be used to introduce decision-making and group planning. Prerequisites: EDP 103 and BUS 120 or BUS 119.

BUS 281 3 0 0 3 Microcomputer Accounting Applications: Accounts Receivable/Accounts Payable

This course is designed for any student interested in learning to use accounting software packages on the microcomputer. The course will emphasize the fundamentals in setting up a microcomputer accounting system, with particular emphasis on using an accounts receivable and accounts payable. Prerequisite: BUS 280.

BUS 282 3 0 0 3 Microcomputer Accounting Applications: Payroll/Inventory

This course is designed for any student interested in learning to use accounting software packages on the microcomputer. The course will emphasize the fundamentals in setting up a microcomputer accounting system, with particular emphasis on using payroll and inventory programs. Prerequisite: BUS 281.

BUS 292 3 0 0 3 Appraisal I

This course is a study of the principles and theory of appraising real property. Topics studied include site evaluations, building materials and components, methods of appraising property, professional organizations, and developing and operating an appraisal business. Prerequisite: None.

BUS 293 3 2 0 4

Appraisal II

This course is a study of the methods and techniques used in estimating the value of residential properties. Topics include analysis of economic factors affecting the value of real estate; local, state, federal, and neighborhood influences; and attitudes and estimation of value. Prerequisite: BUS 292.

BUS 294 3 2 0 4 Appraisal III

This course is a study of the capitalization of income and the income approach to value. Topics covered include an analysis of steps to estimate the value of income-producing properties such as apartments, hotels, motels, office buildings, retail stores, and industrial

buildings. Other areas of study include recapture rates, capitalization rates, and appraisal of lease interests. Prerequisite: BUS 293.

BUS 296 3 0 0 3 Property Management

This course is a study of the nature of property management, the types of property, lease

preparation, protection of property, and property maintenance. Other topics include fair housing, tenant selection, advertising, ethics, budgeting, and associations with people. Prerequisite: None.

BUS 1103 3 0 0 3 Small Business Operations

This course is an introduction to business operation. Areas of instruction include basic business law, business forms and records, financial problems, ordering and inventory control, layout of equipment and offices, and employer-employee relations. Prerequisite: None.

BUS 1122 3 0 0 3 Vocational Keyboarding

This course is an introduction to the touch typewriting system on the microcomputer with emphasis on correct techniques, alphabetic data entry, numeric data entry using the ten-key numeric pad, and proofreading procedures. Prerequisite: None

CAD 151 2 2 0 3 Computer Graphics

This is a course designed to provide fundamental knowledge of the principles of computer graphics. Basic skill and techniques of basic programming with respect to graphic application being taught are also covered. Corequisites: DFT 101 or ARC 106, or permission of department chairperson.

CAD 152 1 0 3 2 Computer-Aided Drafting I

This course will give the student advanced training in the use of micro-CAD applications. These applications will use several types of CAD software with an emphasis placed on specific types of drafting projects. Prerequisite: CAD 151 or permission of department chairperson.

CAD 153 2 2 0 3 Computer-Aided Drafting II

This course will instruct the student on setting up 3-D design and cell files and provide instruction and experience in construction and manipulating 3-D figures using a microcomputer. The students will also be introduced to a mainframe computer system to do hidden line/hidden surface drawings. Prerequisite: CAD 152.

CAD 154 1 2 0 2 Computer-Aided Drafting III

This course will give students additional training on a mainframe computer system. This course includes procedures for accessing

the graphics subsystem, manipulating graphic displays, exercising the graphic commands from the menu and with the keyboard, and exiting the graphic subsystem at the completion of the work session. Prerequisite: CAD 153.

CAD 155 1 4 0 3 Computer-Aided Drafting Applications

This course provides an overview of types of CAD applications which can be found in the market place. The students will go on several field trips to observe the application process. Students will specialize in one area of interest using either a microcomputer or a mainframe system. Prerequisite: CAD 154.

CAR 1101 5 0 15 10 Carpentry I

The course provides instruction in the principles and practices of frame construction beginning with the foundation sills and including floor joists, subfloors, wall studs, ceiling joists, rafters, bridging, bracing, sheathing, and interior wall partitions. The layout and construction methods of common types of roofs using standard rafter construction, truss construction, post and beam construction, and the application and selection of sheathing and roofing are covered. Consideration is given to the coordination of carpentry work with installation of mechanical equipment such as electrical, air conditioning, heating, and plumbing. Prerequisite: None.

CAR 1102 5 0 15 10 Carpentry II

This course is a continuation of CAR 1101. Prerequisite: CAR 1101.

CAR 1103 5 0 15 10 Carpentry III

This course covers the layout and installation of various types of wood or composition paneling, the layout and installation of cornices, and exterior trim on houses. Also, the installation of windows and doors in rough openings and the installation of hardware are covered. Prerequisite: CAR 1102.

CAR 1105 5 0 15 10 Carpentry IV

Exterior and interior trim and the finish carpentry to complete the general carpentry program are covered as well as materials and methods used in finish carpentry such as exterior cornices, door and window trim, interior flooring, door and window facings, moldings, and cornice construction. Also

included are the installation of hardware, construction and installation of built-in equipment and cabinets, and millwork as performed by the general carpenter for building construction. Prerequisite: CAR 1103.

CAR 1114 3 0 0 3 Building Codes

This course covers a study of applicable sections of city, state, and national codes. The course material is correlated with all other carpentry courses. Prerequisite: CAR 1102.

CAR 1115

2 0 0 2

Estimating for Residential Construction
This is a practical course in quantity "take off" from prints of jobs performed by the carpenter. Figuring the quantities of materials needed and costs of building various components and structures will be covered. Corequisite: CAR 1105.

CET 105 0 0 3 1 Computer Tools for Engineering Technology I

This course is the first in a two-course sequence providing an introduction to some of the computational tools available to technicians. The following topics will be covered: numeric notations, use of the scientific calculator, microcomputer use, and the Microsoft Disk Operating System (MSDOS). Prerequisite: None.

CET 106 0 0 3 1
Computer Tools for Engineering
Technology II

This is the second course in a two-course sequence providing an introduction to some of the computational tools available to technicians. The following topics will be covered: use of a word processor for preparation of laboratory reports, electronic spreadsheets for data analysis and graphing, and an algorithmic approach to problem solving. Prerequisite: CET 105.

CET 160 3 0 3 4 Assembly Language Programming

This course covers assembly language programming practices and procedures. A typical industrial computer instruction set is utilized while writing programs centered around industrial control, diagnostics, testing, and computer interfacing applications. Prerequisite: CET 106.

CET 200 4 0 6 6 Microprocessors

This course is an introduction to a typical industrial microprocessor. The theory of operation, architecture, memory, input/output, bus structure, timing and instruction set will be covered. Standard industrial test equipment will be used as an analysis and troubleshooting aid. Prerequisites: CET 160 and ELN 219.

CET 215 4 0 6 6 Mini-Computer Maintenance I

This course is the first in a two-course sequence providing an introduction to the maintenance of a typical industrial minicomputer. The following topics will be covered: overview of computer system organization, instruction set, timing of computer systems, computer diagnostics, and troubleshooting methods. Prerequisite: CET 200.

CET 220 4 0 6 6 Microprocessor Interfacing

This course is an introduction to microprocessor interfacing. The course is designed to familiarize the student with the operation, programming, and connection of interface circuits commonly used with microprocessors. Prerequisites: CET 200, ELN 235.

CET 225 4 0 6 6 Mini-Computer Maintenance II

This course is the second course in a two-course sequence covering the introduction to the maintenance of a typical industrial minicomputer. The following topics will be covered: systems level programming, timing and performance of computer systems, computer I/O, interrupt systems, direct memory access, and computer diagnostic and troubleshooting methods. Prerequisite: CET 215.

CET 232 4 0 6 6 Computer Peripherals

This course covers the operation and maintenance of the peripheral devices found on a typical industrial micro- or minicomputer. Areas covered include troubleshooting procedures, maintenance techniques, and the operational characteristics of the following common peripherals: video display terminals, printers, modems, disk storage systems, and tape storage systems. Prerequisite: CET 215.

Concepts of Computer Networking and **Data Communications**

This course is an overview of the technical aspects of data communications and computer networking. Major topics include terminology, transmission media, modems and modulation, network models, interface standards, packet switching, gateways, LAN components, linking PCs to minis and mainframes, and networking installation. Prerequisites: CET 215 and CET 220.

CHM 010 Pretechnical Chemistry

This is an elementary course in chemistry equivalent to a high school level of difficulty. It provides the necessary foundation in chemistry for students who enter (1) a physical science technical curriculum which requires chemistry at the beginning or (2) a technical program based on the biological sciences. Topics and laboratory experiments are planned to teach chemistry which is related to the various chemical aspects of biological Laboratory exercises and science. experiments are designed to teach the fundamentals of chemistry and develop chemical laboratory skills. Prerequisite: None.

CHM 101 5 Chemistry

This course is a study of the physical and chemical properties of substances, chemical changes, elements, compounds, gases, chemical combinations, weights and measurements, and theory of metals, acids, bases, salts, solvents, solutions and emulsions. In addition, it includes the study of carbohydrates, electrochemistry, electrolytes and electrolysis. Industrial and agricultural applications are emphasized. Prerequisite: None.

CHM 103 Chemistry—General and Inorganic

This is a general course in inorganic chemistry which will include the study of physical and chemical properties and changes of matter. Specifically studied will be elements, compounds, mixtures, chemical reactions, gases, weights and measurements, acids, bases, salts, solvents and solutions. Chemical principles will be discussed which are fundamental to an understanding of life processes. The laboratory exercises supplement and reinforce material introduced in lecture. Prerequisite: None.

CHM 104 Organic and Biochemistry

This course is to familiarize the student with the nomenclature, variety, usefulness, and most significant topics in organic and biochemistry. Prerequisite: CHM 103.

CHM 110 General Inorganic Chemistry I

The first course in general inorganic chemistry includes measurements and calculations; properties of matter, elements. compounds and mixtures; atomic structure: the periodic table; types of chemical bonds: chemical nomenclature and formulas. Prerequisite: Algebra and high school chemistry or CHM 010.

CHM 111 2 General Inorganic Chemistry II

This course includes the study of the chemical mole; chemical equations and calculations based on balanced equations; the gaseous state of matter; water and the properties of liquids; solutions, suspensions and colloids; acids, bases and salts; electrochemistry; reaction rates and equilibrium. Prerequisite: CHM 110.

CHM 113 General Inorganic Chemistry III

This third and final course in the inorganic sequence involves both an introduction to more complicated chemical concepts and a continuation and expansion of a few topics offered in either CHM 110 or CHM 111. include: topics chemical thermodynamics, metals and metallurgy, coordination compounds, organic chemistry, and biochemistry. Expanded topics previously introduced electrochemistry, nuclear chemistry, and chemistry of selected elements. Prerequisite: CHM 111.

CJC 101 Introduction to Criminal Justice

This is a general course designed to familiarize the student with the philosophy and history of the criminal justice system, including its legal limitations in a democratic republic, a survey of the primary duties and responsibilities of various criminal justice agencies, a delineation of the basic processes of justice, and an orientation relative to criminal justice as a vocation. Prerequisite: None.

CJC 102 5 Criminology

This is a general course designed to introduce

the students to the social origins of criminal law, the administration of criminal justice, the causes of criminal behavior, and the prevention and control of crime, including the individual rehabilitation and modification of the social environment. Prerequisite: None.

CJC 103 5 0 0 5

Government—National

Topics covered in this course include English and colonial background, the Articles of Confederation and the framing of the federal constitution, the nature of the federal union, states' rights, federal powers, political parties, and the general organization and functioning of the national government. Prerequisite: None.

CJC 104 5 0 0 5 Government—State and Local

This course is a study of state and local government, including state-federal relationships, the functions and prerogatives of the branches, problems of administration, legal procedures, law enforcement, police power, taxation, revenues, and appropriations. Special attention will be given to North Carolina's government. Prerequisite: None.

CJC 105 5 0 0 5 Introduction to Corrections

This course provides the student with an overview of the correctional system in America, including historical perspectives, contemporary philosophies and the treatment of offenders. The students will gain insight into the North Carolina system including, but not limited to, imprisonment, alternatives to imprisonment, and current issues in corrections.

CJC 110 5 0 0 5 Crime and Delinquency

This course is primarily concerned with scientific efforts to understand crime and to understand man in relation to crime phenomena. It deals with those definitions and formulations of crime and criminals upon which an adaptation system of criminology must be based. It examines the law as the basic framework within which social deviations of a peculiar character assume their functions as criminal acts and those broad principles upon which a science of criminology must rest. Prerequisite: None.

CJC 115 5 0 0 5

Criminal Law I

This course is designed to present a basic

concept of criminal law and to create appreciation of the rules under which one lives in our system of government. Prerequisite: None.

CJC 116 5 0 0 5 Criminal Law II

This is a continuation of the study of the basic concepts of criminal law and why the law operates in its individual ways, jurisdiction, the criminal act, the mental element, and criminal responsibility. The study proceeds to detailed examinations of the numerous specific criminal areas. Prerequisite: CJC 115.

CJC 117 3 0 0 3 Constitutional Law

This course is a study of the Bill of Rights as applied to the criminal justice process, the right to counsel; compulsory self-incrimination; the principles of search and seizure; the elements of a fair trial; interpretation of the First Amendment; double jeopardy; and the principle of equal protection of law. Prerequisite: None.

CJC 120 4 0 0 4 Administration of Justice

This course is a review of court systems; procedures from incident to final disposition; the six primary functional areas for the administration of justice to include police, prosecutor, criminal courts, probation, institutions, and parole; and principles of federal, state, and civil laws as they apply to and affect law enforcement. Prerequisite: None.

CJC 121 5 0 0 5 Criminal Justice-Seminar

The five-hour seminar each week is devoted to review and discussion of field experiences gained in CJC-122. The discussions are supplemented by use of guest speakers and field trips. Corequisites: CJC-122, recommendation of department chairperson.

CJC 122 0 0 10 1 Criminal Justice Practicum

This is a general course designed to provide students with an opportunity to gain, under supervision, work experience in the field of criminal justice, thus providing them motivation and a sense of realism in their field of study. Corequisites: CJC-121, recommendation of department chairperson.

CJC 210

3 2 0 4

Criminalistics I

This course introduces the student to the scientific tools (resources) that are used in the study of criminal activity. Principles of biology, chemistry, and physics provide the basis for readings, lectures, demonstrations, and experiments to acquaint the student with the processes involved and the significance of the findings in conducting investigations and in the collection and preservation of evidence. Emphasis is placed upon specific types of offenses such as arson, illegal drugs, sex crimes, larceny, burglary, and homicide. Prerequisite: None.

CJC 211 3 2 0 4 Criminalistics II

This course is a continuation of the study of criminal investigation, including a general survey of the methods and techniques used in modern scientific investigations of crime, with emphasis upon the practical use of these methods by students. Laboratory techniques will be demonstrated, and the student will participate in actual use of the scientific equipment. Prerequisite: CJC 210.

CJC 213 3 0 0 Criminal Evidence

This course introduces the student to the rules of evidence and their exclusions and exceptions, procedures for the introduction of evidence and the examination of witnesses, and the doctrine on offers of proof and motions to suppress evidence. Concentration is on types and uses of evidence important to criminal justice professionals in the investigation of crimes and the prosecution of those accused of crimes. Prerequisite: None.

CJC 220 5 0 0 5 Criminal Justice Organization and Administration

This course covers the principles of organization and administration of criminal justice agencies. It includes determination of departmental objectives, policies and procedures for recruiting, selecting and training new personnel and development of organizational charts. Prerequisite: None.

CJC 260 3 0 0 3 Ethics in Criminal Justice

Public service professionals are constantly faced with ethical/moral decisions. With increased technology and shifting mores resulting in added pressures and fewer absolutes, those decisions have become at times exceedingly difficult to make. Yet they must be made and made logically. This course studies various ethical questions related to the types of decisions—professional and personal—that public service professionals face. To help them arrive at valid decisions, it also reviews basic ethical thought through the ages and concentrates on logical analyses of such problems. Prerequisite: None.

DFT 101 1 0 3 2 Technical Drafting I

The field of drafting is introduced as the student studies the basic principles of the graphic language. Skills are developed in freehand lettering, geometric figure construction, orthographic and pictorial freehand, and instrument drawing of the principle views of objects as they are represented in the graphic language. Principles of size description are also introduced. Prerequisite: None.

DFT 102 1 0 3 2 Technical Drafting II

This course includes the application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, and the introduction to sections and conventions. Dimensioning practices for details and working drawings as approved by the American Standards Association are covered. Prerequisite: DFT 101.

DFT 103 1 0 3 2 Technical Drafting III

This course is a study of the various techniques employed to produce and render isometric and oblique drawings and isometric, diametric, and trimetric projections. An introduction to screw threads and various fasteners is included. Prerequisite: DFT 102.

DFT 112 3 2 0 4 Drafting—Electromechanical

This course is designed to give the Electromechanical Technology student an introduction to drafting techniques and blueprint reading. The preparation of properly dimensioned rough drawings and sketches will be emphasized. Prerequisite: None.

DFT 204 2 0 3 3 Descriptive Geometry

This course covers a graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems are stressed

with analytical verification where applicable. Visualization is stressed on every problem. Prerequisite: DFT 101.

DFT 205 1 0 3 2

Design Drafting I
This course is an introduction to inking, welding symbols and methods of representing and specifying them, and basic design in the study of motion and transfer mechanisms as they relate to power trains. The principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings, simplified drafting practices, and the types and methods of specifying materials and workmanship are integral parts of the course. Prerequisite: DFT 102.

DFT 206 1 0 3 2 Design Drafting II

This course is an introduction to piping drawings and research to solve a problem in design by consulting various manuals, periodicals, and laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly, and subassembly drawings and specifications are required as a part of the problem. Prerequisite: DFT 205. Corequisite: DFT 260.

DFT 211 3 0 3 4 Mechanisms

This course includes mathematical and drafting room solutions of problems involving the principles of machine elements; a study of motions of linkages, velocities, and acceleration of points within a link mechanism; and layout methods for designing cams, belts, pulleys, gears, and gear trains. Prerequisites: DFT 206, MAT 103, MEC 104.

DFT 212 2 0 6 4 Jig and Fixture Design

This course covers commercial standards, principles, practices, and tools of jig and fixture design. Individual project and design work to acquaint students with the types of jigs and fixtures and their design is also included in the course. Prerequisites: DFT 211 and DFT 223.

DFT 223 2 0 6 4 Design Drafting III

This course introduces the fundamentals of punches and dies. The electromechanical drawings of printed circuits, wiring diagrams, and schematics are also included. Prerequisite: DFT 206.

DFT 224 1 0 3 2

Product Design

This course brings together the original idea, scientific theory involved, applicable product history, limiting manufacturing boundaries, aesthetic importance, and marketability considered with study given to relative importance and intended design goal. Prerequisites: DFT 211 and DFT 223.

DFT 225 1 0 3 2 Computer Graphics Design

This is a course in advanced computer graphic applications with an emphasis placed on project design. The student will have the opportunity to program, plot, store information, and use current data bases. Two-dimensional and three-dimensional graphic applications will be used to produce a finished engineering drawing. Prerequisites: CAD 151, DFT 211, DFT 223.

DFT 260 1 0 3 2 Geometric Dimensioning and Tolerancing This course covers Standard Drafting Practices per USASIY 14.5. It includes general dimensioning, general application of tolerance and limits, tolerance of position and form, and advantages of true position tolerancing. Prerequisite: DFT 103.

DFT 1101 0 0 3 1 Schematics and Diagrams

This course develops the student's ability to read and interpret blueprints, charts, and instruction and service manuals. Also included in the course is information on the basic principles of lines, views, dimensioning procedures, and notes. Prerequisite: None.

DFT 1104 1 0 3 2

Mechanical Drawing I

This is a course in basic mechanical drawing and covers shop sketching, lettering, alphabet of lines, drafting tools, drafting techniques, orthographic projection, multiview drawings, inclined surfaces, curved surfaces, and hidden lines. Prerequisite: None.

DFT 1105 1 0 3 2 Mechanical Drawing II

This course is a continuation of basic mechanical drawing and covers visualizing, auxiliary views, sectional views, measurements on drawings, dimensioning, working drawings, title blocks and fasteners. Prerequisite: DFT 1104.

DFT 1106 1 0 3 2 Mechanical Drawing III

This course is a continuation of basic mechanical drawing and covers pictorial drawing (isometric, oblique, and perspective), simple assembly drawing and geometric construction. Prerequisite: DFT 1105.

DFT 1107 1 0 3 2 Blueprint Reading

This course includes interpreting and reading blueprints applicable to air conditioning, heating, and refrigeration. The development of an ability to read and interpret floor plans, elevations, sections, and details found on pictorial, perspective, isometric, oblique, and three-view drawings is covered. Prerequisite: None.

DFT 1110 0 0 3 1 Blueprint Reading I

This course covers the principles of interpreting blueprints and trade specifications common to the building trades. The development of proficiency in making three-view and pictorial sketches is included. Prerequisite: None.

DFT 1111 0 0 3 1 Blueprint Reading II

This course covers the principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, floor plans, elevations, walls, doors, windows, roofs of buildings, and the development of proficiency in making three-view and pictorial sketches, and estimating from blueprints are covered. Prerequisite: None.

DFT 1112 1 0 3 2 Drafting I: Plumbing

This course includes a review of blueprint reading; instruction in the selection, use, and care of basic drafting instruments; singlestroke freehand lettering; orthographic projection consisting of instruments and freehand sketching; and study of dimensioning and note practices with reference to the American Standard Association practices. The methods of reproducing drawings; detail assembly, layout and pictorial drawings; and specifications, parts list, and bill of materials are covered. The drawings of piping include metal pipe, tubing, plastic pipe, pipe joints, tube joints, pipe fittings, and valves; specification of fittings, pipe threads, and specification of threads; scale layout (twoline drawing) and diagrammatic (single-line drawing), (diagrammatic methods include

orthographic, developed, and pictorial); standard symbols; dimensioning of a pipe drawing, and pipe hangers and support. The student's work includes various problems of piping layout to scale. (Note: School will furnish drafting equipment.) Prerequisite: DFT 1110.

DFT 1113 0 0 3 1
Blueprint Reading: Electrical

This course covers the interpretation of schematics, diagrams, and blueprints applicable to electrical installation with emphasis on electrical plans for domestic and commercial installations using appropriate symbols and notes according to the applicable codes. Prerequisite: None.

DFT 1117 0 0 3 1 Blueprint Reading: Welding

This course is a study of mechanical blueprints and sketches in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications are emphasized. Prerequisite: None.

DVM 1110 1 0 3 2 Introduction to Diesel

This course is designed to familiarize the student with the basic engine components and the principles of both four- and two-cycle engine theory and operation. Competency will be demonstrated in the identification, operation and performance of selected diesel engines and components. Competency will be demonstrated in the identification and use of hand tools and shop equipment. Introduction to microcomputers as related to shop personnel will be presented. Prerequisite: None.

DVM 1111 3 0 9 6

Vehicle Servicing
This course will n

This course will provide instruction in the theory and techniques of servicing heavyduty diesel trucks. Competency will be demonstrated in servicing the engine, lubrication, cooling, intake, exhaust, chassis and power train components. Upon satisfactory completion of the course competency in adjustment and operational theory of brakes, clutches, tires, rims and belts will be demonstrated. Prerequisite: None.

DVM 1112 2 0 3 3 Basic Electricity

This course is designed to familiarize the student with DC current, batteries and truck electrical components. Competency will be

demonstrated in the testing and troubleshooting of batteries, starting systems, charging systems and related electrical components. Prerequisite: None.

DVM 1113 2 0 3 3 Air Brakes

This course is a study of the function and design of the braking system used on diesel trucks. Upon completion of this course a student will demonstrate competency in troubleshooting, repair, adjustments and service techniques of the truck braking components. Prerequisite: None.

DVM 1114 4 0 15 9 Diesel Engines

This course provides the development of a general understanding of the basic principles involved in the construction, operation and maintenance of diesel engines. Upon completion of this course a student will demonstrate competency in the procedures of reconditioning, maintenance and servicing of selected diesel engines. Prerequisite: None.

DVM 1114A 2 0 6 4 Diesel Engines

This course is the first part of a two-part course which provides the development of a general understanding of the basic principles involved in the construction, operation, and maintenance of diesel engines. Upon completion of this course a student will demonstrate competency in the procedures of reconditioning, maintenance, and servicing of selected diesel engines. Prerequisite: None.

DVM 1114B 2 0 9 5 Diesel Engines

This course is a continuation of DVM 1114A. Prerequisite: DVM 1114A.

DVM 1115 2 0 6 4 Drive Trains

This course provides the development of a general understanding of the basic principles involved in the construction, operation and maintenance of a truck drive train. Upon satisfactory completion of this course a student will demonstrate competency in the repair, operation and servicing of clutches, transmissions, drive lines and carrier assemblies. Prerequisite: None.

DVM 1116 2 0 6 4 Suspension and Steering

This course is a study of the function and design of the truck suspension and steering

system components. Upon satisfactory completion of this course the student will demonstrate competency in the operation, repair, adjustment and servicing of the vehicle suspension, steering axle and steering mechanism. Prerequisite: None

DVM 1117 2 0 6 4 Truck Charging and Starting Systems

This course will provide the development of an understanding of the principles, construction and operational features of the truck charging system components. The student will show competency in applying physics principles of electricity and magnetism to service and repair truck starter and charging systems. The student will also demonstrate competency in the troubleshooting, repair and servicing of truck starting and charging system components. Prerequisite: None.

DVM 1118 1 0 6 3 Truck Electrical Systems

This course covers the basic theory and operation of the truck's electrical components and control circuits, excluding the generator and starter. Competency will be demonstrated in the application of physics principles of electricity and magnetism to troubleshoot, service and repair the components and controlling circuits. Attention will be focused on lights, switches, gages and electrical control circuits for various truck system components. Prerequisite: DVM 1112.

DVM 1119 2 0 6 4 Diesel Fuel Systems

This course covers the theory related to a study of the variations in design and the principles of operation of fuel injection systems used on the truck diesel engines. Competency will be demonstrated in the maintenance, repair, testing and adjustment of selected fuel pumps, injectors and system components. Prerequisite: None.

DVM 1120 2 0 6 4 Diesel Truck Maintenance

This course is designed for advanced students in the Diesel Vehicle Maintenance program. An overview and reinforcement of previous tasks will be presented. Student selection of jobs or tasks, with instructor's permission, will be encouraged. Emphasis will be stressed on time of task or job completion. Prerequisites: DVM 1113, DVM 1114, DVM 1115, DVM 1116, DVM 1119 or by permission of department chairperson.

DVM 1121

2 0 3 3

Truck Air Conditioning

This course provides the development of a general understanding of the basic principles involved in the construction and operation of a truck air conditioning system. The student will demonstrate competency in installation, service, troubleshooting and repair of the system components. Prerequisite: None.

ECO 102 3 0 0 Economics I

Economics I is a study of macroeconomics, which treats the economy as a whole. It is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

ECO 104 3 0 0 3 Economics II

This course is a further study into the function of the United States economy as well as a look into world economics. Areas of study include prices, competition, nonprice competition, and income distribution in the United States. The course also includes a study of international trade and payments, economic development, and comparative economic systems. Prerequisite: ECO 102.

ECO 108 3 0 0 3 Consumer Economics

Consumer economics is designed to help students use their resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing finances, increasing resources, and better understanding the economy. Prerequisite: None.

ECO 149 5 0 0 5 Macroeconomics

Macroecononmics is concerned with the economy as a whole or with large segments of it. This course is devoted to study of employment, changing levels of prices, the nation's total output of goods and services, the ways in which government raises and spends money, and an overview of international economics. Prerequisite: None.

ECO 150 5 0 0 5 Microeconomics

Microeconomics is concerned with the specific parts or economic units that make up an economic system and with the relationships between those parts. This course is devoted to the study of individual households, firms, and industries, and the

ways in which such entities interact. Prerequisite: None.

EDP 100 3 2 0 4 Introduction to Data Processing

This course is an introductory course for students in the Business Computer Programming curriculum. It is a technical study of the history, terminology, equipment, and concepts of data processing. Laboratory exercises will be used to familiarize the student with data processing equipment and hypothetical programming languages. Prerequisite: None.

EDP 101 3 2 0 4 Principles of Business Data Processing

This is an introductory course designed to acquaint the student with the field of data processing. It includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises are devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

EDP 102 3 0 0 3 Microcomputer Concepts

This course is designed to introduce the novice student to the fundamental concepts associated with microcomputing. Terminology, fundamental DOS operation, elementary programming concepts, and the microcomputing environment are taught. An introduction to applying microcomputers to various uses and an introduction to the literature are also provided. Prerequisite: None.

EDP 103 3 0 0 3 Introduction to Microcomputing DOS

This course is designed for the student without previous microcomputer experience. Operational concepts, and DOS terminology and commands within a specific microcomputer system are studied. The primary focus and goal is student proficiency with DOS operations. Hands-on involvement constitutes a significant portion of the student's experience. Prerequisite: None.

EDP 104 3 0 0 3 Text Processing Applications I

This course is designed for the student without previous microcomputer experience. The major emphasis will be on fundamental word processing concepts and the skills to operate a specific word processing software package. Prerequisite: BUS 100 or BUS 102. Corequisite: EDP 102 or EDP 103.

5 2 0 6

Assembler Language Programming I This course is an introduction to the study of assembly language programming. It includes assembly language specifications, operations, and rules for writing source programs. The laboratory exercises are devoted to developing program logic and writing assembly language programs to solve sample problems. Prerequisites: EDP 100 and EDP 107. Corequisite: MAT 119

EDP 106 3 2 0 4 Assembler Language Programming II

This course is a continuation of the study of EDP 105, Assembly Language Programming I. It covers the more complex features of the language and more advanced programming techniques. The laboratory assignments are devoted to developing program logic and writing assembly language programs to solve sample programs. Prerequisite: EDP 105.

EDP 107 3 0 0 3 Logic and Decision Making I

This course is an introduction to the concepts of providing logical solutions to the most common types of data processing programming problems. Prerequisite: None.

EDP 108 3 0 0 3 Logic and Decision Making II

This is the second course in concepts of logical development for computer programs. More advanced concepts are covered in this course. Prerequisites: EDP 100 and EDP 107.

EDP 110 3 2 0 4 COBOL Programming I

This course is an introductory course in compiler language programming utilizing COBOL. It includes COBOL concepts, components, structure, and basic instructions. The laboratory assignments stress development of program logic and writing COBOL programs to solve sample problems. Prerequisites: EDP 100, EDP 108, and MAT 117.

EDP 111 3 2 0 4 COBOL Programming II

This course is a continuation of the study of COBOL. It includes more complex COBOL instructions and techniques. The laboratory exercises stress developing program logic and writing programs to solve simulated industrial and business problems. Prerequisite: EDP 110.

EDP 112 3 2 0 4 COBOL Programming III

This course is a continuation of the study of COBOL emphasizing the more complex features of the language, efficient programming techniques, and debugging techniques. The laboratory exercises stress developing program logic and writing programs to solve simulated business and industrial problems. Prerequisite: EDP 111.

EDP 114 3 0 0 3 Text Processing Applications II

This course is a continuation of EDP 104 and is designed for the student who will utilize the word processing package in a professional or business setting. The course provides the student with knowledge of advanced word processing terms and concepts. Prerequisite: EDP 104.

EDP 120 3 2 0 4 Introduction to Computer Programming This course is a nontechnical introduction to the COBOL programming language. Instruction includes how COBOL is used in business to automate business procedures. The laboratory exercises will be used to develop COBOL programs that can solve

business problems. Prerequisite: EDP 101.

EDP 121 0 2 0 1
Fundamentals of Database Management
This course is designed for students who
need a fundamental but functional overview
of database management. This course will
not fulfill any of the requirements for the
Microcomputer Certificate. Prerequisite:
None.

EDP 122 0 2 0 1 Fundamentals of WordPerfect

This course is designed for students who need a fundamental but functional overview of the WordPerfect word processing program. This course will not fulfill any of the requirements for the Microcomputer Certificate. Prerequisite: None.

EDP 123 0 2 0 1 Fundamentals of Personal Computers

This course is designed for students who need a fundamental but functional overview of the operation of IBM or compatible personal computers. This course will not fulfill any of the requirements for the Microcomputer Certificate. Prerequisite: None.

3

Business Word Processing

This course is designed to provide business students with basic terminology, concepts, and operational skills needed to cope with virtually any word processing program within their working environment. Corequisite: BUS 100 or BUS 102, and EDP 103 or permission of instructor.

EDP 126 0 0 3 1 Microcomputer Practicum

This course is designed to give the student practical experiences in a variety of microcomputing applications. The student will work with a full-time instructor for 3 hours per week in a variety of situations. This course may be repeated for a maximum of 3 credit hours. Prerequisites: EDP 103 or permission of instructor.

EDP 140 3 2 0 4 BASIC Language Programming I

This is a course designed to acquaint the student with the BASIC programming language. The course is designed for the student who has no background in microcomputer operation. Laboratory exercises are used to provide experience in solving business data processing problems. Prerequisite: None.

EDP 141 3 2 0 4 BASIC Language Programming II

This course will involve writing BASIC programs using structured programming techniques, manipulation of sequential and random data files, sorting and searching of data, and arrays and the use of graphics in a business environment. Prerequisite: EDP 140.

EDP 142 3 0 0 3 Introduction to C Language

This is an introductory course in C Language. Laboratory exercises are used to provide experience in solving business data processing problems using C Language. C programs may be executed on a microcomputer running MS-DOS/PC-DOS or the UNIX operating system. Prerequisite: EDP 151.

EDP 145 3 0 0 3 Introduction to the UNIX Operating System

This is an introductory course in using and understanding the UNIX operating system. Laboratory exercises are used to provide experience in solving data processing problems. Prerequisite: None.

EDP 150 3 0 0 Data Base Management Systems I 3

This course is designed to provide an operational knowledge of fundamental concepts and terminology associated with data base management systems. Structural design, data input and retrieval, indexing, sorting, calculation, and report generation are studied within the environment of a specific data base management system. Prerequisite: EDP 103 or permission of instructor.

EDP 151 3 0 0 3 Operating Systems II

This course is designed to provide a more indepth study of the operating system in association with program execution and interface. A focus on specialized topics as well as a comprehensive approach is taken. Student independence in problem solving, research, and working within an operating system is a primary focus. Prerequisite: EDP 103.

EDP 152 3 0 0 3 Financial Spreadsheet Operations I

This course is designed to provide the student with knowledge of fundamental spreadsheet operations and the skills to operate a specific financial spreadsheet package. Template design and "what if" analysis are primary conceptual and operational focuses. Prerequisite: EDP 103 or permission of instructor.

EDP 154 3 0 0 3 Microcomputer Communications

This course is designed to familiarize the student with the capabilities and operations of various communications and/or networking systems. Types of hardware, systems, and transmission, as well as utilities and services are studied. Students should have a thorough knowledge of DOS upon entry to this course. Prerequisite: EDP 102 and EDP 103.

EDP 156 3 0 0 3 Microcomputer Graphics I

This course is designed to familiarize the student with the fundamental concepts and operation of a microcomputing graphics package. Representational concepts studied are animation, pie charts, line charts, and graphics report generation. Linkage within a presentation format is a primary focus. Prerequisite: EDP 103 or permission of instructor.

3 0 0 3

Introduction to Assembler Language Program

This is an introductory course in Assembler Language on the microcomputer. The course of study focuses upon system architecture in relationship to software design. Labexercises will be completed on a microcomputer executing MS/PC DOS. Students should have a thorough knowledge of standard C language or the BASIC language. Prerequisite: EDP 286 or EDP 141 or permission of instructor.

EDP 159 4 2 0 5 Introduction to Computer Information Systems

This course is a topical survey of computer information systems with emphasis upon an integrated overview of computing through its system components. Topics may include computers in business and the modern office, computer hardware and software, applications software, operating systems and shells, computer input/output, storage devices, structured programming, and the historical, current and future significance of computing in society. In order to prepare students with a basis for future educational and computing endeavors, competencies are stressed in such lab application areas as word processing, spreadsheet operations, and data base management systems. Individual lab work and a term paper are required. Prerequisite: None.

EDP 160 3 0 0 3 Special Topics in Microcomputing

This course is specifically conceived to meet industry and special group needs which are not addressed within the scope of the existing curriculum. This course may only be used to fulfill elective curriculum requirements. Prerequisite: EDP 103.

EDP 162 3 0 0 3 Financial Spreadsheet Operations II

This course is designed to acquaint the student with intermediate concepts in the construction of spreadsheet templates and the presentation of financial information. Major topics to be covered will include data base operations, graphics presentations, financial analysis, and report generation. Prerequisite: EDP 152.

EDP 164 3 0 0 3 Networking I

The concepts, principles, and a brief history of data communications are provided. Data communications facilities such as

transmission hardware and cabling, transmission codes, transmission modes, protocols, topologies, the Open Systems Interconnection (OSI) model, LANs, networks, distributed systems and data communications terminology are areas studied. Hands-on experience does not constitute a portion of this course. Prerequisite: EDP 154.

EDP 171 3 0 0 3 Alternative Operating Environment I

This course is designed for the student with a fundamental understanding of DOS who is interested in other operating environments. Comparable DOS commands will be taught in the system being studied along with a comprehensive study of other software provided with the system. Hands-on involvement constitutes a significant portion of the student's experience. Prerequisite: EDP 103.

EDP 172 3 0 0 3 Financial Spreadsheet Operations III

This course is designed as a study of advanced concepts in spreadsheet analysis and design. Major topics to be covered include data communications and translation, macro language concepts, and other programming considerations. Prerequisite: EDP 162.

EDP 173 3 0 0 3 Desktop Publishing Concepts I

This course is an introduction to the fundamental concepts and terminology associated with Desktop Publishing. Operational skills necessary for the design, layout, and printing of a publication are introduced within a conceptual as well as an experiential framework. Prerequisites: EDP 103, EDP 104, or EDP 125 or BUS 240 or BUS 250.

EDP 174 3 0 0 3
Intermediate Desktop Publishing

This course focuses on building intermediate skills in desktop publishing. This course expands upon the basic concepts of publishing from the desktop by providing extensive practical application practice using a specified software package. Emphasis is placed on actual publication of multipage documents integrating numerous components of design. Students begin to manage the documents, select options, and make system configuration choices. Emphasis is also placed on learning traditional journalism and printing terminologies and applying them to an electronic desktop publishing environment. Prerequisite: EDP 173.

Alternative Operating Environment II

This course is designed for the student with a fundamental understanding of Microsoft Windows who wishes to improve the performance of Windows and Windows applications. Hands-on involvement constitutes a significant portion of the student's experience. Prerequisites: EDP 103 and EDP 171.

EDP 202 2 0 4 **Minicomputer Operating Systems**

This course is designed to acquaint the computer programming student with the operating system of a general purpose business minicomputer. Topics covered will include objects, logical and physical files. libraries, creating and administering user profiles, journaling, save/restore functions. database query, and command language programming. Prerequisites: EDP 100 and EDP 108.

EDP 205 Systems Analysis and Design

This course is designed to give the student training in systems analysis and design. Instruction in the classroom and the laboratory will be on problem definition, file organization, effective retrieval and manipulation of information, and systems design techniques. Prerequisite: EDP 111.

EDP 208 Advanced Programming

This course is designed to acquaint students with complex programming activities and refined programming techniques. The major language to be used is that of COBOL since most business data processing installations utilize this language for most program development. Concepts included in the Computer Systems and the Systems Analysis courses will be further developed. Prerequisites: EDP 111, EDP 210, and EDP 205.

EDP 210 Mainframe Computer Operating Systems This is a study of computer systems involving such topics as job scheduling, file devices, file organization, operating systems, job control language, and multi-programming. Prerequisites: EDP 110 and MAT 117.

EDP 220 0 Research Project

This course is designed to give the student an opportunity to initiate and carry out a carefully selected project. The student is given the responsibility to solve a significant problem with a minimum of assistance from the instructor. Prerequisite: EDP 205.

EDP 230 2 Introduction to FORTRAN

This course is an introduction to FORTRAN, a problem-oriented language. The laboratory exercises are devoted to developing program logic and writing programs using FORTRAN. Prerequisites: EDP 100, EDP 108 and MAT

EDP 240 PL/1 Programming I

This course is an introduction to PL/1 programming. It includes basic PL/1 concepts, components structure, and instructions. The laboratory assignments are devoted to developing program logic and writing programs using PL/1. Prerequisites: EDP 100 and EDP 108.

EDP 242 2 0 C Programming Language

This course is designed to acquaint the Business Computer Programming student with the C Programming Language. The fundamentals of the language, arrays, pointers, and file handling are included. Prerequisites: EDP 100, EDP 108, MAT 117 and EDP 105.

EDP 245 2 **UNIX Operating System**

This is a general course in using the UNIX operating system. Laboratory exercises are used to provide experience in solving data processing problems using UNIX. Prerequisites: EDP 100 and EDP 108.

EDP 250 Introduction to DBMS Programming I

This course is and introductory course in the xBase programming standard. It is designed to provide an operational knowledge of fundamental xBase programming concepts and terminology associated with data base management systems software design. Prerequisite: EDP 103.

EDP 256

Microcomputer Graphics II

This course is a continuation of EDP 156. It is designed to familiarize the student with the advanced concepts and operation of computer-aided drawing, picture library access, animation, and graphics report generation. Prerequisite: EDP 156.

3 2 0 4

EDP Microcomputing

This course offers a very intense study of the most advanced concepts in microcomputing. Research, experimentation, and lab assignments are included in the development of concepts. Prerequisites: EDP 140 and EDP 108.

EDP 262 3 0 0 3 DBMS Programming II

This course is a continuation of EDP 250. The focuses and objectives of this course are student independence in software applications development and the study of techniques associated with source code compilation. Primary emphasis is placed upon student independence. A lab and project approach is taken. Incorporation of design concepts are utilized within command modules via a project approach. Prerequisite: EDP 250.

EDP 264 3 0 0 3 Networking II

This course is a continuation of EDP 164. Principles and techniques of local network design, development, and implementation will be presented. With available resources, hands-on experience involving installation and configuration of various network topologies will be an integral part of this course. Prerequisite: EDP 164.

EDP 270 3 2 0 4 RPG III Programming I

This is an introductory course in RPG III programming. Laboratory exercises are used to provide experience in producing reports and processing files using RPG III. Prerequisites: EDP 100 and EDP 108.

EDP 271 3 2 0 4 RPG III Programming II

This course is a continuation of the study of the RPG III Programming Language. Laboratory exercises will involve arrays, data validation, disk files, database structure, and interactive processing. Prerequisite: EDP 270.

EDP 275 3 0 0 3

Hardware/Software Support

The intent of this course is to present the principles and techniques of microcomputer hardware interface, software installation, troubleshooting, and data exchange among software programs. Prerequisites: EDP 151 or permission of the instructor.

EDP 280

3 0 0 3

Expert/Intelligent Systems

This course introduces AI concepts and techniques. It involves the study of the internal and external design features of an expert system as related to artificial intelligence concepts. Study of a specific system in relation to design concepts is the primary focus. Prerequisite: EDP 250.

EDP 281 3 0 0 3 Operating Systems III

This course is designed for the student with previous or current microcomputer experience. Operational concepts, and operating systems terminology and commands within one or more microcomputer operating systems are studied. The primary focuses are student proficiency with operations understanding of systems concepts. Handson involvement constitutes a significant portion of the student's experience outside of class as lab assignments. Prerequisites: EDP 103 and EDP 151.

EDP 282 3 0 0 3 Microcomputer Business Applications

This course is designed to give the student experiences using a variety of business-related software on the microcomputer. The course will introduce a variety of software packages and give the student the opportunity to explore how productivity can be increased using the microcomputer and software. Prerequisites: EDP 103 and MAT 119.

EDP 283 3 0 0 3 Multimedia/Presentation Graphics

This course will enable students to explore new horizons of communication by integrating text and graphics with animation, sound, and video. Prerequisites: BUS 100, EDP 103, and EDP 104.

EDP 284 3 0 0 3

LAN Administration

This course provides the principlies of LAN administration and operation. This course discusses the LAN operating system installation, configuration, features, and menu and command line functions. With resources available, hands-on experience involves setup, configuration, and management of a LAN operating system. Prerequisite: EDP 264.

EDP 285 3 0 0 3

C Language I

This is an introductory course in Borland C Language programming. Programming

topics include an overview of the language, programming mechanics, data types, control statements, and input/output. This course is designed for individuals with prior experience in another language. Prerequisite: EDP 103 or permission of instructor.

EDP 286 3 0 0 3 C Language II

This course completes the introduction to traditional C Language programming with coverage of arrays, pointers, structures, and file input/output. An important objective is the development of student independence in programming and software design. Prerequisite: EDP 285 or permission of instructor.

EDP 287 3 0 0 3 C Language III

This course is a continuation of EDP 286 and concentrates on student independence in language standards, software design, and software development. Student independence in application development is a primary focus. Thorough knowledge of the standard C language is required. This is a course for computer professionals. Prerequisite: EDP 286 and permission of instructor.

EDP 289 1 4 0 3 Microcomputer Project

This course is designed to demonstrate the skills and competencies developed in practical personal computer applications. The student will be required to analyze, develop, and complete an assigned project with minimal supervision from the instructor. Prerequisites: EDP 114, EDP 154, EDP 156, EDP 162, EDP 173, EDP 262, BUS 282, and ENG 103.

EDP 1101 3 0 0 3
Desktop Publishing for Graphic Arts

This course focuses on introducing the concept of publishing from the desktop using PageMaker publishing software package. Emphasis is placed on the planning, design, layout, editing, and printing of a publication. Text and graphics are imported into the package. Hands-on involvement constitutes a significant portion of the student's experience. Introduction to DOS fundamentals will also be included. Prerequisite: None.

EDU 101 6 0 0 6 Child Growth and Development

This course is the study of the mental and physical growth of the child from birth through adolescence. Through a brief review of recent studies in child development, the student will gain knowledge of frequently used educational research methods and research terminology. Prerequisite: None.

EDU 102 3 2 0 4 Programs for Young Children

This is a comparative study of traditional, current, and innovative preschool programs. The laboratory experience provides opportunities for the students to observe and record the growth and behavior of young children. Prerequisite: EDU 101.

EDU 103 3 0 10 4 Working with Young Children

Case presentations, film observations, and group discussions are utilized to study characteristic behaviors of each level of development and to derive guidelines for promoting desirable behaviors and for coping with undesirable behaviors. Laboratory experiences will provide opportunities to develop observation skills, effective techniques, and beginning skill in adapting activities to the needs of individual children. Prerequisite: EDU 102.

EDU 104 3 0 0 3 Art for Young Children

This course is a study of the art of young children and the development of techniques of working with young children to encourage creative expression through a variety of media. Prerequisite: EDU 103 or permission of the department chairperson.

EDU 105 3 0 0 3 Music and Creative Movement for Young Children

This course is an exploration of a wide variety of musical activities for young children with special emphasis on techniques of selecting activities appropriate to the age level and the individual needs of the children. Prerequisite: EDU 103 or permission of department chairperson.

EDU 106 5 0 10 6 Activities for Young Children: Science and Math

This is individual and group exploration of activities and materials for developing mathematics and science experiences for preschool children, which would permit the children to learn through manipulation, experimentation, and discovery. The laboratory experience provides opportunities to implement activities with children. Prerequisite: EDU 112.

EDU 107 Communicating with Young Children

This is a course designed to improve the verbal and nonverbal communication of students working with small children in the child care center. Special emphasis is on developing awareness of body language communication, listening skills and modeling of the English language for young children. Aids to the reading and telling of literature will also be taught. Each student will be given laboratory assignments for communication experiences with small children. Prerequisites: ENG 100 and EDU 101.

EDU 108 0 Social Studies in Early Childhood

This is a study of the social studies phenomena that are of interest to young children. Classroom experiences will be designed to teach the student to use social studies as an integral component of the overall program for young children. Prerequisite: None.

EDU 109 Physical Activities: Games for Young Children

This is an exploration of activities for promoting optimal overall physical development of young children, with special emphasis on body movements (exercise, dance, and games). The lab time is devoted to implementing games with children. Prerequisite: None.

EDU 110 2 0 3 **Instructional Media and Resources**

This course is a survey of media and appropriate learning materials for young children. It includes a study of the role of instructional media and resources in teaching and learning, and sources of free, inexpensive material. Directed practicum time is used to construct and prepare appropriate teaching aids to use with children to help conceptual development. Prerequisites: EDU 101, EDU 102, and EDU 103.

EDU 112 0 0 Language Arts in Early Childhood

This course is a comprehensive study of each facet of language arts with emphasis on techniques of designing activities and selecting materials to promote optimal overall development and to meet the specific needs of individual children. Prerequisite: None.

EDU 202 0 10 **Curriculum Development and Planning** This course provides experience in a variety of child care settings to develop further skill in working with young children, in assisting with programming activities, and in adapting to the needs of individual children. Analysis of individual problems encountered in working with specific age groups will be studied. Prerequisite: EDU 106.

EDU 203

The Exceptional Child

This is a study of children with development variations requiring modification in activities. Consideration is given to recognition of problems, community resources, and appropriate activities for the child with exceptional deviations in personality or physical development. Prerequisites: PSY 102, PSY 205, and EDU 106.

EDU 204 0 Parent Education

This is a study of ways parents can be involved in the child development center, of the purpose and value of home visitation, and of techniques for reporting child progress to parents. The role of the early childhood specialist in aiding parents in guidance of the child's development is emphasized. Each student will develop a series of programs appropriate for presentation to the parents of preschool children. Prerequisite: EDU 103.

EDU 206 Special Problems

This course is a directed study of a specialized area of early childhood appropriate to individual career interests of students. Prerequisite: EDU 202.

0 20 6 **EDU 211** Early Childhood Internship

This is a study to give the student practice in the care of the young child. This course will give the student more experiences in directing preschool activities. Students spend a major time block caring for and guiding young children. Opportunities to carry out planned units of study will be allowed the student in this quarter. Prerequisites: Successful completion of all practicums and permission of department chairperson.

0 0 **EDU 230** Issues in Early Childhood: Discipline

This course focuses on basic concepts of discipline as an educational tool for the normal It emphasizes the student's development of an attitude of positive interaction with children and one another in an effort to foster the growth of affirmative behaviors in young children. Prerequisite: None.

EDU 232 Programming for Infants: A Guide to

Very Early Childhood Education

This course focuses on how the adult can provide good programs for children from birth to two years of age which enhance overall development and provide good physical care. Emphasis is placed on formulating and implementing individual activity plans. Prerequisite: None.

EDU 233 Issues in Early Childhood: Infant Feeding This course focuses on how care givers must understand and provide for proper feeding of infants. Emphasis is placed on the nutrition

essential for good development. Prerequisite:

None.

EDU 234 Issues in Early Childhood: Child Abuse and Neglect

Because child abuse and neglect often reflect changes and stresses in society, this course has been designed to increase one's awareness of this form of violence and to teach the students how they can create a more nurturing, less stressful, nonviolent environment for our children. Prerequisite: None.

EDU 235 Issues in Early Childhood: School- Age **Child Care**

This course focuses on unique characteristics and needs of the school-age child. Emphasis is on planning developmentally appropriate enrichment activities. Prerequisite: None.

EDU 271 Child Care Administration

This course will focus on laws and regulations, policies, procedures, and other administrative responsibilities of operating a child care facility. Prerequisites: Successful completion of practicums or permission of department chairperson.

ELC 101 Fundamentals of Electricity I

This course is an introduction to the basic principles of electricity and electric circuits. The definitions of fundamental electrical units will be covered, and DC responses of various series and parallel resistive networks will be studied. Prerequisite: None.

ELC 102 6 **Fundamentals of Electricity II**

Series and parallel resonant-circuits analysis, resonant and nonresonant transformer analysis, basic diode power supply analysis,

introduction to nonlinear resistive control devices. and introduction electromechanical devices are studied. Prerequisites: ELC 101 and MAT 101.

ELC 1111 Applied Electricity

The fundamental concepts of alternating current, including a study of capacitive and inductive effects and resulting phase angle, are covered. A study of power, current, voltage, and impedance in the AC circuit as applied to AC power machinery and control devices relating to heating and refrigeration systems are also included in the course. Prerequisite: None.

ELC 1120 7 0 15 **Direct and Alternating Current**

The course includes a study of the structure of matter and the electron theory; the relationship between voltage, current, and resistance in series, parallel, and seriesparallel circuits; analysis of direct current circuits by Ohm's Law and Kirchhoff's Law; sources of direct current potentials; fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power, and resonance; and alternating current circuit analysis. Prerequisite: None.

ELC 1121 Electrical Installation Fundamentals

This is an introduction to the field of electrical installation. Instruction will include a course overview, use of hand tools, wiring layouts, practice wiring, safety, and the National Electrical Code. Prerequisite: None.

ELC 1122 15 12 Residential Wiring I

The techniques learned in ELC 1121, Electrical Installation Fundamentals, will be applied to actual wiring. Other subjects covered will include material take-off, power tools, and electrical calculations. The study of the electrical code will be continued. Prerequisite: ELC 1121.

ELC 1123 15 11

Residential Wiring II

This is a continuation of ELC 1122, Residential Wiring I. Practice wiring will be continued. Other subjects covered will include interpretation of specifications, electrical contracts, switch gear, and electrical design. The study of the electrical code will be continued. Prerequisite: ELC 1122.

Commercial and Industrial Wiring

This course covers layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Prerequisite: ELC 1123.

ELM 200 Mechanisms

This course is an introduction to the various simple mechanisms which are used to build up industrial machinery. Kinematic aspects as well as physical applications will be studied. Prerequisite: PHY 111.

ELM 210 Electromechanical Devices

This course covers a wide range of electromechanical devices found in industrial equipment. The theory of operation of each will be studied and an opportunity will be provided in the lab to become familiar with their operating characteristics and limitations. The common causes of trouble will also be studied. Prerequisites: ELM 200, ELN 210.

ELM 215 Electrical Control Systems

This course is an introduction to the study of the control of electrical equipment. It covers the various elements used in control systems and their use to control the electromechanical equipment which powers much of today's industrial machinery. Various power distribution systems will be discussed and the use of programmable controllers will be introduced. The laboratory will give an opportunity to implement some of these systems. Prerequisites: ELM 200, ELN 210. Corequisite: ELM 210.

5 3 **ELM 220 Automatic Control Systems I**

This course continues in the study of more programmable controller advanced applications. Emphasis will be on the use of the personal computer in the development, transferring, and testing of programs. The combination of programmable controllers with computer graphics data gathering and control programs will be covered. A study of robotics applications will be introduced, with significant hands-on laboratory experience. Prerequisites: ELM 210, ELM 215. Corequisite: ELN 219.

ELM 225 Programmable Controls

This course is an introduction to the use of programmable controllers in industrial applications which currently employ conventional relay logic. Although a reasonable knowledge of these relay control systems is assumed, a thorough review will be provided. Sufficient laboratory time will be allowed to ensure that the student attains a hands-on working knowledge of programmable controllers. Prerequisite: ELN 236 or equivalent experience.

ELM 230 Automatic Control Systems II

This course is a continuation of Automatic Control Systems I. More advanced automatic control systems and typical industrial process control systems will be studied. Measurement theory and PID loops will be covered, and an opportunity will be provided to investigate them in the lab. An overview of process control computers and computer-integrated manufacturing will be given. Prerequisites: ELM 220 and ELN 219. Corequisites: ELM 240 and ELN 225.

ELM 240 Electromechanical Troubleshooting

This course will instruct students in the development of a coherent strategy for solving maintenance problems with electromechanical equipment they are likely to encounter in industry. In order to give hands-on experience in the lab, several systems will be provided in which known problems can be inserted. Emphasis will be placed on equipment controlled by programmable controllers, and typical industrial systems such as motor speed controls and some process control instrumentation. Procedures will be stressed rather than specific equipment. Corequisites: ELM 230 and ELN 225.

ELN 110 Transistor Applications

This course is devoted to transistor operations as a discrete control device. The content includes biasing and dynamic analysis of the common-emitter, common-collector, and common-basic configurations as they apply to amplifiers and oscillators. Some general consideration is given to the field effect transistor. Prerequisites: ELC 102 and MAT

ELN 210 Linear Integrated Circuits

This course is an extensive study of linear

102.

integrated circuits such as differential amplifiers, operational amplifiers, regulators, timers, and phase lock loops. Emphasis is placed on OP amp applications as they apply to waveshaping, amplifiers, oscillators, and filters. Prerequisite: ELN 110.

ELN 219 5 0 6 7 Digital Fundamentals

This course is an introduction to the logic and digital circuits typically used in industrial control circuits, microprocessors and computer systems. Prerequisites: ELN 110 and ELN 210.

ELN 225 4 0 6 6 Computers and Microprocessors

This course is an introduction to a typical industrial microprocessor. The theory of operation, architecture, memory, input/output, bus structure, timing and instruction set will be covered. Standard industrial test equipment will be used as an analysis and troubleshooting aid. Prerequisite: ELN 219.

ELN 235 5 0 6 7 Industrial Electronics I

This course is a study of a wide variety of transducers, such as pressure, temperature, light, and velocity as they apply to industrial control devices. Prerequisite: ELN 210.

ELN 236 4 0 6 6 Industrial Electronics II

This course is a study of electromechanical devices, including electric motors and generators, motor starters, and contractors. Also, servo systems and three-phase power distribution are covered. Prerequisite: ELN 235.

ELN 247 4 0 6 6 Electronic Systems: Computers

This course consists of a functional block diagram analysis of a microcomputer system currently used in industry. Classroom activity includes flow charting and the use of the instruction set in writing programs in machine language. The lab will provide practice in manipulating the hardware and software associated with such computers. Prerequisite: ELN 219.

ELN 248 5 0 6 7 Microprocessor Interfacing

This course is an introduction to microprocessor interfacing. The course is designed to familiarize the student with interface circuits commonly used with microprocessors. A short introduction to job hunting is included. Prerequisites: ELN

110, ELN 210, ELN 219, ELN 235, ELN 236 and ELN 247.

ELN 250 4 0 6 6 Networking Personal Computers

This course is an introduction to the Basics of Local Area Networks (LAN's). Major topics include structure of the personal computer, wiring and cabling considerations for the LAN's, network interface cards, and software installation on the file server and workstations. Prerequisite: ELN 247.

ELN 1110 1 0 3 2 Basic Electronics

This course is a general introduction to electronic systems as currently found on gasoline and diesel vehicles. Students will review AC-DC electrical and magnetic theory. The student will be introduced to solid state devices, transducers and microprocessors as they apply in a controlled environment and to the electronic equipment used in troubleshooting and testing of solid state devices. Prerequisite: DVM 1112.

ELN 1118 3 0 3 4 Industrial Electronics

This is a general introduction to the field of electronics with special emphasis on industrial applications. This course is designed to help the nonelectronic vocational student understand the basic principles of electronics as applied in a modern industrial setting. After a review of DC and AC theory, the student will see digital electronics applied in the control of motors. In addition, the student will receive a brief introduction to process control and various transducers. Prerequisite: PHY 1103

ELN 1121 5 0 9 8 Solid State Devices and Circuits

This is a course in solid state theory and the servicing of AM and FM radio and stereo receivers. Devices to be studied include the diode, transistor, FET, Zener diode, and the VCO as circuit components. The circuits studied are multiplexing and decoders. An introduction to troubleshooting of AM, FM, and FM stereo receivers is included. Prerequisite: ELC 1120.

ELN 1122 4 0 9 7 Transistor Theory and Circuits

This is a course in semiconductor theory. Devices to be studied include the diode, transistor, FET, Zener diode, SCR, UJT, and integrated circuits. Circuits studied in lecture and laboratory sessions include power supplies, tuned amplifiers, audio amplifiers,

oscillators, and detectors. An introduction to systems troubleshooting is included. Prerequisite: ELC 1120.

ELN 1123 7 0 18 13 Black and White Television Servicing

The course covers a study of black and white television receivers, a detailed study of all circuits of the TV receiver in classroom and laboratory sessions, and supervised servicing practice to develop skills in using test equipment to repair and maintain television receivers. Prerequisites: ELN 1121 and ELN 1122.

ELN 1124 6 0 21 13 Color Television Servicing

The course includes theory of operation of the television circuits peculiar to color receivers, composite color telecasting signals, color receiver detectors, kinescopes, convergence, and matrix networks. The theory of operations and practical test bench techniques, including troubleshooting, alignment, and convergence, are covered. Prerequisite: ELN 1123.

ELN 1125 (A) 3 0 6 5 Digital Logic Circuits

This course is a study of binary notation based on the binary numbering system. The conversion of analog to digital, analysis of logic gates, solid state display of AND gates, OR gates, NAND gates, NOR gates and exclusive OR gates will be included in the study. Prerequisite: ELN 1124 or permission of the department chairperson.

ELN 1125 (B) 2 0 3 3 Digital Logic Circuits

This course is a continuation of ELN 1125 (A), Digital Logic Circuits. This part of the course is a study of circuits used in home entertainment devices including logic display systems, counters, registers, and memories. Operational amplifiers and linear integrated circuit microprocessors are also studied. Prerequisite: ELN 1125A.

ELN 1126 (A) 3 0 6 5 VCR Servicing

This course is designed to train the student in the basic theory related to troubleshooting and repair of VHS and Beta video cassette recorders. Camcorders that have both recording and playback capabilities will also be introduced. A practical approach to troubleshooting and repair of VCR's will be presented by the use of block diagrams in two main categories, records and playback circuits. Prerequisites: ELN 1125A&B or permission of the department chairman.

ELN 1126 (B) 2 0 3 3 VCR Servicing

This course is a continuation of ELN 1126 (A) with emphasis on schematic reading, use of special troubleshooting test instruments, and practical hands-on troubleshooting. Prerequisite: ELN 1126 (A).

ELN 1127 (A) 3 0 6 5 Compact Disc Servicing

This course will provide a study and familiarization with commercial systems of recording and playback of audio and video information recorded on discs. Systems for entertainment and data storage are covered. Advantages and disadvantages of analog audio video disc systems and digital laser produced discs are presented. Servicing and troubleshooting of compact discs will be introduced. Prerequisite: ELN 1125A&B or permission of department chairperson.

ELN 1127 (B) 2 0 3 3 Compact Disc Servicing

The theories and troubleshooting of the compact disc are studied in detail. Special test equipment, schematic readings, system diagnosis and repair are emphasized. Prerequisite: ELN 1127 (A).

ENG 001 3 0 0 0 Spelling

This course in basic spelling emphasizes the relationship of symbols to their corresponding sounds. It stresses spelling rules, mnemonics, and techniques in the perceiving of sounds and retaining the memory for words as a configuration. Proofreading and dictionary use are also emphasized. Prerequisite: None.

ENG 005 2 2 0 0 Language Development I

This is the first in a series of courses which concentrate on basic reading skills that enable a student to analyze words through phonetic word attack. Prerequisite: Recommendation by the department chairperson.

ENG 006 2 2 0 0 Language Development II

This is a continuation and specialization in language skills. Prerequisite: Recommendation by the department chairperson.

ENG 007 2 2 0 0

Language Development III

This is a continuation and specialization in language skills. Prerequisite: Recommendation by the department chairperson.

ENG 008

2 2 0 0

Language Development IV

This is a continuation and specialization in language skills. Prerequisite: Recommendation by the department chairperson.

ENG 010 5 0 0 0 Basic Writing Skills

This course is designed to reinforce the writing skills of those students who are not ready to attempt successfully the materials in ENG 101, Introduction to Written Communication. This course enables the student to develop competency in flow of writing, organization, sentence structure, punctuation, and proofreading. Prerequisites: ENG 021 and ENG 001, if diagnostic tests indicate a need for these courses. Corequisite: ENG 022, if needed.

ENG 017 5 0 0 0 Principles of the Alphabetic System I

This is the first of three reading courses designed to teach the phonemic structure of the English language. Prerequisite: Recommendation by the department chairperson.

ENG 018 5 0 0 0 Principles of the Alphabetic System II

This course is a continuation of the process of teaching reading through the phonemic structure of the English language. Prerequisite: ENG 017.

ENG 019 5 0 0 0 The Phonetic Approach to Language Structure

This course helps students build a solid foundation of basic word and reading skills using the phonemic process. Study of word parts, dictionary use, and literal comprehension is also incorporated. Prerequisite: Recommendation by the department chairperson or as determined by departmental test battery.

ENG 021 3 0 0 0 Basic Reading Skills and Vocabulary I

This basic reading course is structured to enable students who are experiencing decoding difficulties to improve their word attack skills. Dictionary usage, comprehension, and vocabulary development are also included. Prerequisite: Demonstration of minimum proficiency in word attack skills as determined by departmental test battery.

ENG 022 3 0 0 0 Basic Reading Skills and Vocabulary II

This course is designed to enable students to develop the ability to analyze words and to increase their vocabulary. Major emphasis is placed on developing comprehension skills. Prerequisite: Demonstration of a minimum proficiency in comprehension and word attack skills as determined by the departmental test battery or completion of ENG 021.

ENG 023 3 0 0 0 8 Basic Reading Skills III

This course is an advanced reading course that stresses speed and accuracy in reading comprehension with emphasis on attaining satisfactory performance levels on standardized tests. Additional topics studied include test-taking techniques, vocabulary building and reading in the content areas. Prerequisite: Demonstration of an 11+ grade reading level based on a departmental standardized test or successful completion of ENG 022.

ENG 050 5 0 0 0 English for International Students

An introductory level course designed to prepare ESL (English-as-a-Second Language) students for more capable performance in curriculum coursework. Emphasis is placed on the following skills: pronunciation, vocabulary, spelling, word order and sentence patterns, and fluent expression. Prerequisite: A demonstrated fourth grade reading level, based on a departmental standardized test (TABE M) and referral by the Pretechnical Department Chairperson.

ENG 100 3 0 0 3 Oral Communication

This course provides students the opportunity to improve their skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

ENG 101 3 0 0 3 Introduction to Written Communication A study of the writing process with emphasis on developing short essays. Exercises in style and mechanics as needed. Prerequisite: Passing score on screening tests or English 010 and/or English 111.

ENG 102 3 0 0 3 Composition

A study of the writing process with emphasis

on the basic logical modes and critical analysis to develop research papers. Exercises in style and mechanics as needed. Prerequisite: ENG 101 or equivalent transfer credit.

ENG 103 3

Technical Report Writing

A study of the writing process with emphasis on technical reports using topics related to the student's major curriculum. Unit on employment letters is included. Prerequisites: ENG 102 and enrolled in third quarter of curriculum (minimum) or by permission of department chairperson.

3 **ENG 111 Grammar Skills**

English 111 is designed to bridge the gap between English 010, Basic Writing Skills, and English 101, Introduction to Written Communication. Its main purpose is to prepare students for the editing and proofreading requirements in English 101 and the upper-level writing courses. Basic grammar, punctuation, and mechanics review are the major units of study. Although drill and practice are the main teaching techniques, writing assignments will be used to make sure students can identify and punctuate major structures of the language. By the end of the course, students should be able to edit prose (their own and others') according to the standards of current English usage. Prerequisite: None.

3 **ENG 115**

Appreciation of Literature

Students will read and analyze works from various periods and cultures in the major prose and poetry genres. Through group discussions and individual papers they will relate literature to other fields of study (e.g. history and psychology) so that they will better understand how literature reflects life and culture. Prerequisite: None.

ENG 116 0 Children's Literature

This is a survey of literature for young children. The student will gain an appreciation and awareness of a variety of types of literature to be presented to the child during the preschool years. Prerequisite: EDU 107 and EDU 112.

1 **ENG 118 Feature Writing**

This course provides for identification, research, and application of writing techniques with emphasis on newsprint. It includes analysis of readers and reader appeal.

The students in this class contribute to the quarterly production of the student newsletter. Technically Speaking. Prerequisite: Permission of the instructor.

ENG 119 Graphics and Layout of Print

This course examines the physical appearance of the newsletter with emphasis on print size and placement of headlines, visuals and announcements. The students contribute to the production of the newsletter. Technically Speaking. Prerequisite: Permission of the instructor.

ENG 120 0 1 **Interviewing and Reporting**

The course examines the correct procedure for interviewing and reporting the news. The students will produce a quarterly newsletter, Prerequisite: Technically Speaking. Permission of the instructor.

0 1 **ENG 121 Newsletter Editing**

This course examines the application of newsletter journalism in relation to copy proofreading, formulation of headlines and newsletter organization. Students in this class must contribute to the production of the quarterly newsletter, Technically Speaking. Prerequisite: Permission of the instructor.

ENG 122 1

Modern Lay-Out Techniques Through lectures, demonstrations and hands-

on experience, the student will learn to use the Apple Macintosh Plus computer for desktop publishing. Opportunities will also be offered to use the IBM computer for graphics. Prerequisite: None.

ENG 123 Lav-Out Practices

Students will begin lay-out of the school magazine, FTCCTECHTALK. Corequisite: ENG 122.

ENG 124 The Popular, Literary, and Art Magazine By a broad survey of a variety of magazines published by institutions, the student will formulate a concept of the content and layout of such a magazine. Prerequisite: ENG 102 or permission of the instructor.

ENG 125

Magazine Practices

Students will produce the school magazine, FTCC TECHTALK. Corequisite: ENG 124.

ENG 150

5 0 0 5

Freshman Composition I

A study of the writing process with emphasis on short themes and research papers. Students will develop skills in prewriting, writing, and reviewing while completing written and oral assignments based on various kinds of prose. They will also learn how to use these skills for writing in other disciplines. Prerequisite: Satisfactory score on placement test or permission of department chairperson.

ENG 151 5 0 0 5 Freshman Composition II

A continuation of the applications and principles in ENG 150 with emphasis on analyzing and critiquing selected literary works. Prerequisite: ENG 150.

ENG 201 5 0 0 5 English Literature I

A study of selected British writers from the Anglo-Saxon period through the Restoration with emphasis on various genres as background for the writing of student themes. Prerequisite: ENG 151.

ENG 202 5 0 0 5 English Literature II

A study of selected British writers from the Romantic Age to the present with emphasis on various genres as background for the writing of student themes. Prerequisite: ENG 151.

ENG 205 3 0 0 3 Report Writing

A study of the writing process with emphasis on business reports. Both formal and informal reports are developed. Prerequisite: ENG 102 or permission of the department chairperson.

ENG 206 3 0 0 3 Communications

A study of the writing process with emphasis on business letters and memos. An employment unit is included. Prerequisite: ENG 102 or permission of department chairperson.

ENG 207 3 0 0 3 Educational Report Writing

This is a written communication course stressing business letters, memos, reports, and employment interviewing. Special emphasis will be on types of communication written in child care centers, anecdotal records, school newsletters, progress letters and reports, request letters for conferences, accident reports, press releases, etc. In

conjunction with the summer quarter courses (EDU 112 and EDU 110), each student will prepare a report on teacher-made materials as a project for both the English and education courses. Prerequisites: EDU 101, EDU 102, EDU 103, and ENG 102.

ENG 210 5 0 0 5 American Literature I

A survey of major American literature from its beginning through the 19th century with emphasis on various genres as background for the writing of student themes. Prerequisite: ENG 151.

ENG 211 5 0 0 5 American Literature II

A survey of 20th century American literature with emphasis on various genres as background for the writing of student themes. Prerequisite: ENG 151.

ENG 220 5 0 0 5 Survey of African-American Literature

This course will explore the vast and rich body of literature by African-American writers, beginning with Lucy Terry's "Bars Fight" in 1746 and arriving at the present with such contemporary authors as James Alan McPherson, Alice Walker, August Wilson, Rita Dove, and Terry McMillan. Students will read, analyze and grow to appreciate African-American literature through a sampling of the genres. In addition to traditional literacy approaches, the works will be considered within their historical and sociological contexts. Prerequisites: ENG 151 or ENG 102.

ENG 230 5 0 0 5 Creative Writing-Short Fiction

An exploration of fiction writing with an emphasis on developing specific skills for writing the short story. Prerequisites: ENG 150 and 151 or ENG 101 and 102.

ENG 250 5 0 0 5 Patterns in World Literature

This introductory course considers the recurring themes, motifs, and patterns of classical and folk literature, relating these to current expression. Students will explore both in and out of class, collectively and individually, the patterns that have concerned mankind throughout time. Development of oral and written presentations will be stressed. Prerequisite: ENG 151 or permission of instructor.

ENG 1101

3 0 0

3

Communications I

A course in communication skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

ENG 1112 3 0

Communications II

A course in communication skills with emphasis on written communication in business and industry. Included are units on business letters, job employment, records, forms and reports. Prerequisite: None.

FSE 101F 3 0 0 3 Intro to Funeral Service

This course includes the principles of funeral service and its history. Emphasis is placed on the ethical obligations and fundamental requirements involving skill, aptitude, and qualifications of funeral directors. Upon completion, students will be able to recognize historical names, places, and events from the past which directly affect the future of funeral service. Prerequisite: None.

FSE 115F 3 0 0 3

Funeral Service Law

This course provides the student with insight into the fundamentals of mortuary law. Emphasis is placed on North Carolina Mortuary Law, OSHA, anatomical donations, vital statistics, and general law relative to mortuary law. Upon completion, students will be able to complete death certificates, notification of death forms, medical examiner forms, and other required forms. Prerequisite: None.

FSE 121F 3 0 0 3 Funeral Service Practices

This course helps develop a knowledge of funeral service procedure of various religions and provides a study of the customs and funeral practices in the U.S. Topics include the study of liturgical and nonliturgical Protestant, Catholic, Jewish, and many other religious groups. Upon completion, students will be able to discuss the different religious and fraternal groups and know how their services are conducted. Prerequisite: None.

FSE 224F 4 0 0 4

Funeral Home Operations

This course will outline all phases of funeral home operations, and students will develop a basic approach to successful business techniques. Topics include establishing a funeral home, choosing and financing a location, building, remodeling, merchandising, caskets, vaults, and planning. Upon completion, students will be able to discuss proper procedures in operating, supervising, and owning their own funeral home. Prerequisite: None.

FSE 245F Pathology I

This course is designed to provide the student with general knowledge of the disease process. Topics include pathological terminology, basic body functions, trauma, disease process, and etiology. Upon completion, students will be able to recognize various terminology used in the medical profession and will have a more acute awareness of the disease process. Prerequisite: None.

FSE 247F 3 0 0 3 Funeral Counseling

This course is a study of the principles of counseling that will be of assistance to funeral directors whose work requires counseling ability. Topics include the personality and role of the counselor, techniques of counseling, and philosophies of counseling. Upon completion, students will be able to relate more effectively to those who are experiencing the grief process. Prerequisite: None.

HEA 102 5 0 0 5 Personal Health

This course consists of a study of influences on physical and mental health, individual practices including personal nutrition which aid in maintaining good physical and mental health throughout the life span, and responsibilities of those working with young children to maintain personal health and to serve as models for health practices. Prerequisite: None.

HEA 113 3 2 0 4 Health and Safety for Young Children

This is a study to promote understanding of factors which influence physical and emotional health of infants and young children. Emphasis will be given to preventative measures such as designing a safe and stimulating outside play area. The course will embrace first aid techniques and allow for observation of children in play situations. The influence of child care workers on health and safety and on the teaching of health habits is emphasized. Prerequisite: None.

HET 1101

6 0 12 10

Heating Systems

This course includes oil burner fundamentals; operation, control, and service of oil burner systems; gas heating devices; operation, control and service of gas burner systems; installation and service of electric heating elements and their controls; principles of operation of hot water and low pressure systems; and the installation and service of piping, controls, pumps, and coils. Prerequisite: AHR 1105.

HET 1101A 3 0 6 5 Heating Systems (Part I)

This course is the first of a two-part course and it includes oil burner fundamentals; operation, control, and service of oil burner systems; gas heating devices; operation, control and service of gas burner systems; installation and service of electric heating elements and their controls; principles of operation of hot water and low pressure systems; and the installation and service of piping, controls, pumps, and coils. Prerequisite: AHR 1105.

HET 1101B 3 0 6 5 Heating Systems (Part II)

This course is the continuation of HET 1101A. Prerequisites: AHR 1105 and HET 1101A.

HIS 101 5 0 0 ! History of Western Civilization I

A survey of social, political and economic developments from antiquity to the Enlightenment. Prerequisite: Satisfactory score in reading on placement test.

HIS 102 5 0 0 5 History of Western Civilization II

A survey of social, political and economic developments from the Age of Absolutism to the present. Prerequisite: Satisfactory score in reading on placement test.

HIS 111 5 0 0 5 American History

A survey of the development of the United States from its old world background to the present. Emphasis will be placed on major economic, political, and social forces which have contributed to the building of American culture. Prerequisite: Satisfactory score in reading on placement test.

HIS 150 5 0 0 5 American History to 1865

This course describes American History from the period of exploration and the colonial period through the Civil War. Emphasis will be placed on the European background of American History, establishment of English colonies in America and colonial historical development; the conflict with England and the securing of independence; the establishment of independent government and the inauguration of a new nation; territorial expansion and the westward movement; the growth of democracy and social reforms; development of national feeling and sectional tensions; the institution of slavery and the slavery controversy; and the Civil War. Prerequisite: Satisfactory score in reading on placement test.

HIS 151 5 0 0 5 American History since 1865

In this course, emphasis is placed on the political, constitutional, economic and social problems resulting from Reconstruction and the rise of "Big Business"; the emergence of the United States as a world power; World War I, prosperity, the Depression and the New Deal; the Second World War; the Korean and Vietnam conflicts; and the position of the United States in the contemporary world community. Prerequisite: Satisfactory score in reading on placement test.

HOR 130 1 2 0 2 Introduction to Floral Design

This course will be an introduction to the principles and mechanics of floral design. It will include the study of design principles, the geometric forms of flower arrangements and the mechanics of assembling floral arrangements. Floral designs for such occasions as weddings, receptions, holidays, and funerals will be included. Prerequisite: None.

HOR 140 2 4 0 4 Home Maintenance

This course concentrates on the jobs associated with maintaining a lawn and home surroundings throughout the year. Instruction includes shrub fertilization, tree fertilization, disease control of lawns and shrubs, pruning, proper irrigation of shrubs and lawns, and proper use of herbicides and pesticides. It is designed for people interested in making home maintenance their choice of career work. Prerequisite: None.

HOR 145 4 2 0 5 Entomology and Pathology

This course is a study of insects that attack ornamental plant materials. The nature, structure, and importance of each insect are studied in detail. Additional emphasis is placed upon detection, identification, and control of the insects studied. Methods for controlling diseases of ornamental crops are learned by studying the structure, life history, and identification of the various parasitic disorders which plague ornamental trees, shrubs, flowers, and turf. Prerequisite: None.

HOR 150 3 0 0 3 Interior Plants

Instruction in this course includes simple botany, taxonomy, physiology, identification, culture, and care of house plants. One hundred of the more common indoor plants will be studied and identified. Prerequisite: None.

HOR 151 3 4 0 5 Plant Identification I

This course is an introduction to the woody plant materials grown in nurseries for landscape purposes and those found in woodlands and fields of North Carolina. The major emphasis is on deciduous shrubs and small trees. Prerequisite: None.

HOR 152 3 4 0 5 Plant Identification II

Additional trees and shrubs are studied in this course. The major emphasis is placed upon a detailed study of broad-leaved and narrow-leaved evergreens. Prerequisite: HOR 151.

HOR 153 3 2 0 4 Greenhouse Management

Greenhouse Management concentrates on procedures and practices of greenhouse plant production. This course also provides instruction in the construction and management of plastic and glass greenhouses, including heating, lighting, ventilation, and humidity. Crop studies include both cut flowers and pot plant crops. Prerequisite: None.

HOR 170 4 2 0 5 Plant Science

This is an introductory general botany and plant science course covering the fundamental principles of reproduction, growth functions, and development of seed bearing plants. Prerequisite: None.

HOR 180 2 2 0 3 Bedding Plant Production

This course is designed to enable students to start plants from seed and grow them to a marketable stage through use of proper cultural practices. Prerequisite: None.

HOR 185 5 2 0 6 Soil Science and Fertilizer

This course deals with the basic principles of efficient classification, evaluation and management of soils. Upon completion of this course, the student should be able to demonstrate proper care, cultivation, fertilization, and conservation of soil. Prerequisite: None.

HOR 200 0 0 30 3 Practicum

This course will expose students to the physical aspects of jobs available in their chosen field and provide them opportunities for the development of personal relationships. Students will acquire the skills and practical knowledge necessary for success in their chosen career fields. Prerequisite: Must be second-year horticulture student.

HOR 201 3 0 0 3 Horticultural Chemicals

This course is designed to enhance the student's understanding of horticultural chemicals. Instruction will focus on the importance of horticultural chemicals, ingredients, formulation, and application with special emphasis on the effective and safe utilization of chemicals in horticultural pest control. Although the major emphasis is weed identification and those chemicals utilized for weed control, part of the course will be devoted to insecticides, fungicides, and others. Prerequisite: None.

HOR 210 5 0 0 5 Field Analysis

Students will keep records of the experiences in HOR 200 Practicum. They will relate such experiences to the following major areas of instruction: plant materials, plant science, soil science and fertilizers, horticultural chemicals, landscape construction, landscape gardening, plant propagation, and nursery management. Records compiled by the student will be summarized in the form of a weekly report and reviewed by the instructor. These reports will culminate in a final term paper. Prerequisite: Must be a second-year horticulture student who is also registered for HOR 200 practicum.

HOR 220 4 0 0 4 Vegetable and Flower Gardening

Upon completion of this course, the student will be able to plan effectively a complete vegetable garden that will encompass the entire year. The student will also learn how to grow vegetables properly by use of insecticides, herbicides, and proper

fertilization. If possible, the students will have a garden to take care of so that they might carry out the practices they learn. This is to be a self-study course with help from the supervising instructor. Prerequisite: This course is for second-year horticulture students who are enrolled in HOR 200 practicum.

HOR 240 4 2 0 5 Landscape Construction I

This course deals with the actual construction of brick patios, walks, steps, brick borders, brick walls around trees, lawn furniture, picnic tables, or other wood projects which may be used in a home landscape. It will also cover estimating the job cost of these various projects, including drawing plans to scale. Prerequisite: None.

HOR 241 4 2 0 5 Landscape Construction II

This course will be a continuation of HOR 240, Landscape Construction I, with added emphasis on students actually carrying out projects from planning stage to completion. Other skills will be acquired through additional projects. Prerequisite: HOR 240.

HOR 251 3 4 0 5 Landscape Design I

This course is an introduction to and study of the basic principles of landscape design. Considerable emphasis is placed on the problems associated with residential site development, including blueprint reading. Laboratory time is devoted to visiting established residential sites. The course is not oriented toward a mastery of creativity and artistry, but toward an understanding of certain principles fundamental to all landscape design endeavors. Prerequisites: HOR 151 and HOR 152.

HOR 252 3 4 0 5 Landscape Design II

Upon completion of this course, the student will be able to develop and maintain landscaped areas including planting, pruning, fertilization, and pest control. In addition to acquiring skills in selection and use of materials in landscape construction, the student will also receive instruction in the fundamentals of landscape economics, including costs, contracts, and calculation of areas, volumes, and plant quantities. Prerequisites: HOR 151, HOR 152, and HOR 251.

HOR 254 3 2 0 4 Plant Propagation

This course is a study of the basic concepts

and principles of sexual and asexual propagation. Propagation techniques are utilized in the industry and studied through practical exercises conducted in laboratory sessions. Prerequisite: None.

HOR 256 2 4 0 4 Nursery Management I

This is an introductory study of nursery operations designed to acquaint the student with the diversity of nursery plant production, equipment, and operation. The theory and practices necessary to produce profitable nursery stock will be acquired through the study of such areas as pruning, fertilization, plant protection, and others. Prerequisite: None.

HOR 257 2 4 0 4 Nursery Management II

This course is a continuation of HOR 256, Nursery Management I, with increased emphasis placed upon production schedules and choice and quantities of stock to be grown as well as developing cost data, price schedules, and record keeping for economically important nursery crops. Planning of nursery layout and facilities is also covered. Prerequisite: HOR 256.

HOR 258 3 2 0 4 Turf Practices

This course is a study of special-purpose turf grasses, including identification, use, establishment, and maintenance of specific grasses. Laboratory time is used for field trips to golf courses where students observe and participate in those operations required to maintain a healthy, vigorous playing surface. Prerequisite: HOR 185.

HOR 259 1 2 0 2 Garden Center Management

This course covers all phases of garden center operation, including some of the major problems. Areas of study include layout, stocking, product knowledge, traffic flow, seasonal fluctuations, risks, diversification, and merchandising. Ample time will be devoted to visitations to established garden center operations. Prerequisite: None.

HUM 1101 3 0 0 3 Humanities for Vocational Students

This course is designed to help students recognize the importance of values through cultural, economic, political and geographical considerations affecting themselves and their relationship with others, both personally and professionally. Prerequisites: None.

Ouality Control

This course is a study of the principles and techniques of quality control and cost savings; organization and procedure for efficient quality control; functions, responsibilities, structures, costs, reports, personnel, and vendor-customer relationships in quality control; and sampling inspections, process control, and tests for significance. Prerequisite: MAT 102.

ISC 203 3 Motion and Time Study

This course includes a study of operations analysis, types of process charts, breakeven analysis, micromotion analysis, work measurement techniques, predetermined time systems (MTM), and development of standard data for incentive systems. Prerequisite: None.

ISC 209 3 4 **Plant Layout**

This course is a practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Included are layouts for small and medium-sized plants; layout fundamentals; selection of production equipment and materials handling equipment; and the effective management of people, money, and materials in a manufacturing operation. Prerequisite: None.

ISC 212 Engineering Economic Analysis

This course introduces the student to basic concepts and computations used in engineering economic analysis. The course is designed for a student unacquainted with economics and engineering principles. A building block approach is used to develop basic computational skills and techniques to evaluate alternatives in order to facilitate the process of decision making with respect to industrial-based investments. The student will be introduced also to computerized analysis. Prerequisite: MAT 102 or departmental permission.

LEG 103D

Evidence of Paralegals

A study of basic evidence law principles and the relationship of these principles to the investigation and preparation stages of civil and criminal court actions. Prerequisite: None.

LEG 115D

0

Paralegal in the Legal System

An introduction to the role of the paralegal in the legal system, government and business, plus study of the legal restrictions of the practice of law and ethical responsibilities of the lawyer and the paralegal in the legal system. Prerequisite: None.

LEG 132D Law Library Research and Management Methods of legal research, proper citation of authority, acquaintance with legal resources such as statutes and case reporters. shepardizing of cases, synthesis of decisions, use of computers in legal research. Also, introduction to legal writing form and

technique, including preparation of simple briefs and memoranda. Prerequisite: None.

LEG 133D Law Library Research and Management This course is a continuation of LEG 132D with emphasis on computer-assisted legal research. The course will also explore the creation, organization, and maintenance of a law library. The student will learn to select, order, catalog, file, and update a current legal collection. Prerequisite: LEG 132D.

LEG 135D

Legal Systems

An introduction to the legal systems in federal courts and in North Carolina state courts from the trial level to the highest appellate levels. Emphasis will be on court procedures in civil cases. Included will be a study of the clerk of superior court functions in the North Carolina legal system. Prerequisite: None.

LEG 136D

Legal Systems

A continuation of LEG 135D with emphasis on practical application and an introduction to often used procedural forms. Prerequisite: LEG 135D.

3 **LEG 207D**

Legal Software

An introduction to software programs developed for the practice of law which will include the following areas: estate planning, real estate transactions, law office management, and family law. Prerequisite: Four quarters in program or permission of instructor.

3 0 **LEG 213D**

Law and the Family

The legal obligations in a marriage; rights and privileges of the parties; the statutory grounds for divorce; defenses to divorce actions; elements of a legal separation by a court order or by mutual consent. Family problems, juvenile courts, legal proceedings in adoption and custody cases will also be studied. Prerequisite: None.

LEG 214D 2 0 0 2 Domestic Law Documents

This course is designed to supplement Law and the Family for paralegal students. The course will introduce the student to the preparation of documents required for domestic relations problems including divorce, child custody and support, alimony, enforcement of support orders, and adoption. Prerequisites: LEG 213D, LEG 136D.

LEG 223D 4 0 0 4 Investigation of Civil Claims

An in-depth study of investigative methods necessary for gathering, preserving, and analyzing evidence for effective presentations of civil actions. Included are interviews, preservation of witness statements, collection and interpretation of medical information, collection of other evidence, scene diagrams, legal research, organization and assemblage of evidence for attorney use. Prerequisites: BUS 115, LEG 135D.

LEG 225D 4 0 0 4 Law Office Management

A study of the organization and management of law offices, with emphasis upon administrative systems and procedures for efficient law office operation. Included are studies of personnel management; law office equipment, furnishings and layout; filing systems; systems for keeping track of deadlines; and accounting, billing, and timekeeping systems. Prerequisite: None.

LEG 227D 4 0 0 4 Estate Management

This course teaches interview techniques and gathering of data for preparation of wills and estate plans. Basic estate and trust principles will be included. Also, the student studies procedures for administration of estates of deceased persons, minors, and incompetents, including preparation of inventories, accounts, inheritance and estate tax returns, and other administrative documents. This introduction is expanded into more detailed coverage in LEG 228D. Prerequisite: None.

LEG 228D 4 0 0 4 Estate Management

A continuation of LEG 227D, Estate Management. Prerequisite: LEG 227D.

LEG 230D 4 0 Bankruptcy & Collection Proc.

The student will be introduced to the federal bankruptcy laws and the procedures and documents required of persons involved in bankruptcy and debt adjustment proceedings. Also covered will be the processes used by attorneys for the collection of debts, including enforcement of judgments. Prerequisites: None.

LEG 235D 4 0 0 4 Litigation Preparation

Study of the steps in aiding an attorney in preparing a civil case for trial, emphasizing preparation of a trial notebook, organization of discovery and other trial materials, and preparation of witnesses for trial. Also, preparation of workmen's compensation claims is included. Prerequisites: LEG 136D.

LEG 261D 1 0 10 2 Clinical Practice

This course provides the student with an opportunity to gain, under staff supervision, practical on-the-job experience in the paralegal field as an integral part of his formal education. Periodic conferences between the student, instructor, and employer and periodic seminars with others enrolled in clinical practice provide opportunities to assess the learning achieved by the student in the work experience. Prerequisites: Four quarters in the Paralegal curriculum and permission of the instructor. Students are graded pass or fail.

LEG 280D 3 0 0 3 Business Organizations Law

A summary of the individual, partnership, and corporate forms of doing business, including professional associations, limited liability of corporations, and tax advantages. Emphasis is placed upon gathering appropriate data to support the making of the decision, gathering data to support the preparation of the documents when the decision is made, and the processing of the documents when they have been prepared. Servicing the corporation. Scheduling of annual meetings, preparations of reports, tax returns, and the like. Prerequisite: 115.

LEG 282D 4 0 0 4 Property Transactions

An introduction to basic concepts of real property with emphasis on the mechanics of conveyances and encumbrances of real property. Basic provisions of deeds, mortgages, and deeds of trust, and the more common problems in real property titles will also be studied. Prerequisite: None.

LEG 283D

4 0 0 4

Property Transactions

A study of the mechanics of simple title searches and examinations with practical experience in the use of courthouse records and preparation of suggested title certificates for approval by the title attorney. Also studied will be the mechanics of land sale closings—including the preparation and recording of simple deeds and deeds of trust; preparation of other land sale and loan closing documents, and the handling and disbursement of land sale and loan closing funds. Prerequisite: LEG 282D.

MAT 001 5 0 0 0 Structure of Arithmetic

This course is designed to help the student gain and improve computational skills. Instruction is in the basic operations of arithmetic to include addition, subtraction, multiplication and division of whole numbers, fractions, decimals, and percents. Prerequisite: None.

MAT 002 5 0 0 0 Prebusiness Mathematics

This course is a review and reinforcement of the basic mathematical skills used in business mathematics. Prerequisite: None.

MAT 003 5 0 0 0 Introductory Algebra

A course designed to provide the student with the basic understanding and manipulative skills of elementary algebra, with some basic applications. It includes whole numbers, fractions, signed numbers, first degree equations, exponents, polynomials, factoring, rational expressions and graphing. Prerequisite: None.

MAT 004 5 0 0 0 Intermediate Algebra

This course is designed for those students who have had some previous instruction in algebra. Basic concepts of algebra are covered. It includes the real number system, first degree equations, polynomials, factoring, rational expressions, radicals and complex numbers, quadratic equations, functions, and logarithmic functions. Prerequisite: MAT 003 or equivalent.

MAT 005 5 0 0 0 Geometry

This course is designed to provide the student with the basic understanding and manipulative skills of elementary geometry. Prerequisite: None.

MAT 009

5 0 0 0

Algebra and Trigonometry

This course is for students who need a review of algebra and trigonometry. It includes basic algebra, functions, graphs, right triangles, basic identities, equations and applications. Prerequisite: MAT 004 or equivalent.

MAT 020 3 0 0 0 Mathematics for Health Education

This course is designed for the student who is preparing for a health career. Topics covered are basic operations of arithmetic, fractions, decimals, percents, ratio and proportion, metric system, apothecaries' system, and mathematics of drugs and solutions. Prerequisite: None.

MAT 101 5 0 0 5 Technical Mathematics I

This is a course in mathematics designed to support all technology courses. Topics covered are fundamental concepts and operations of algebra, functions and graphs, trigonometric functions, linear equations and determinants, factoring and fractions, quadratic equations, vectors, oblique triangles, and graphs of trigonometric functions. Prerequisite: Satisfactory score on mathematics placement test or MAT 004.

MAT 102 5 0 0 5 Technical Mathematics II

This is a course in mathematics designed to support all technology courses. Topics covered are exponents and radicals, joperator, logarithms, algebraic and trigonometric equations, inequalities, variations, progressions, advanced topics in trigonometry, and equations of higher degree. Prerequisite: MAT 101.

MAT 103 5 0 0 5 Technical Mathematics III

This is a course in mathematics designed to support all technology courses. Topics covered are the straight line, limits, geometric and algebraic interpretation of the derivative, applications of the derivative, integration, and applications of integration. Prerequisite:

MAT 113 3 0 0 3 Allied Health Mathematics I

This is the first of a series of two courses designed to develop a high level of proficiency in basic mathematical and algebraic skills for the student in a health center. Topics covered are whole numbers, fractions, decimals, percents, algebraic concepts, linear

MAT 102.

equations, functions and graphs, and trigonometric functions. Prerequisite: None.

MAT 114 3 0 0 3 Allied Health Mathematics II

This is a continuation of MAT 113, Allied Health Mathematics I. Topics covered are logarithms, ratio and proportion, metric system, apothecaries' system, mathematics of drugs and solutions, and basic statistics. Prerequisite: MAT 113.

MAT 115 3 0 0 3 Fundamental Concepts of Algebra

This is a general review of fundamental mathematics with emphasis on algebra and algebraic applications. Topics covered are the real number system, properties of numbers, sets, functions and relations, graphing, solution of equations and inequalities, polynomials, powers and roots, and basic trigonometry. Prerequisite: High school algebra or MAT 003.

MAT 116 5 0 0 5 Fundamental Concepts of Statistics

This is a course in statistics designed to support all technology courses. In scope, the course consists of frequency distribution, graphic representation, percentiles, measures of central tendency, variability, the normal distribution curve, sampling error, significance of difference between means, correlation, statistics and the design of experiment, and chi-square. Prerequisite: MAT 115.

MAT 117 5 0 0 5 EDP Mathematics

This is a general course in algebraic concepts designed specifically to prepare data processing students for later course work. Hexadecimal-binary arithmetic, polynomial operations, fraction equations and quadratic equations are the primary topics covered. Prerequisite: None.

MAT 118 3 0 0 3 General Mathematics

This course is an introduction to elementary school mathematics. Topics covered are the basic operations of arithmetic with fractions, solving simple equations, and an introduction to certain concepts of modern math. Prerequisite: None.

MAT 119 5 0 0 5 Principles of Mathematics

This course is designed to give students an overview of important topics in mathematics. Topics covered are operations of arithmetic,

percents, set theory, problem solving, graphs, and an introduction to the concepts of algebra, geometry and statistics. Prerequisite: High school Algebra I or equivalent.

MAT 120 5 0 0 5 Mathematical Concepts

This course is designed for the liberal arts students and will cover number systems, sets, consumer mathematics, the metric system, probability, statistics and the geometry of shape and measurement. Prerequisite: Satisfactory score on mathematics placement test.

MAT 121 5 0 0 5 Statistics

This course is a study of fundamental statistical techniques, basic statistical distributions, measures of central tendency, statistical inference and sampling techniques. Prerequisite: MAT 009 or equivalent.

MAT 122 5 0 0 5 Finite Mathematics

This course includes instruction in Elementary Matrix Algebra including addition, subtraction, multiplication, and inverses; application of Matrix operations to solution of linear equations; introduction to linear programming including Simplex technique; counting, partitioning and basic set operations; elementary probability; Markov chains; applications to selected areas in the behavior or social sciences and business. Prerequisite: MAT 009 or equivalent.

MAT 123 5 0 0 5 College Algebra

This course is designed as a precalculus covering the following topics: fundamentals of algebra, equations, and inequalities, functions and graphs, polynomial and rational functions, exponential and logarithmic functions, systems of equations. Prerequisite:

MAT 124 5 0 0 5 Trigonometry

MAT 009 or equivalent.

This course is designed as a precalculus covering the following topics: algebraic preliminaries, the trigonometric functions, trigonometric identities and equations, applications of trigonometry, and analytic geometry. Prerequisite: MAT 123 or equivalent.

MAT 125 5 0 0 5 Analytic Geometry and Calculus I This course is designed as an introduction to analytic geometry and calculus. Topics include the rectangular coordinate system, functions and graphs, limits, differentiation, applications of differentiation, and integration. Prerequisite: MAT 124 or equivalent.

MAT 126 5 0 0 5 Analytic Geometry and Calculus II

This course is a continuation of Analytic Geometry and Calculus I. Topics include trigonometric and exponential functions, techniques of integration, conic sections, and polar coordinates. Prerequisite: MAT 125 or equivalent.

MAT 127 5 0 0 5 Analytic Geometry and Calculus III

This course is a continuation of Analytic Geometry and Calculus II. Topics include infinite series, vectors, and surfaces. Prerequisite: MAT 126 or equivalent.

MAT 128 5 0 0 5 Analytic Geometry and Calculus IV

This course is a continuation of Analytic Geometry and Calculus III. Topics include partial derivatives, multiple integrals, and differential equations. Prerequisite: MAT 127 or equivalent.

MAT 130 5 0 0 5 Business Calculus

A calculus course designed to support all business courses. Topics covered are differentiation, applications of differentiation, exponential and logarithmic functions, integration, applications of integration, functions of several variables, and trigonometric functions. Prerequisite: MAT 123.

MAT 201 5 0 0 5 Technical Mathematics IV

This is a course in mathematics designed to support the electronics technology curriculum. Topics covered are advanced concepts of a differential and integral calculus, the Maclaurin series, series expansions, and differential equations and applications. Prerequisite: MAT 103.

MAT 1101 5 0 0 5 Fundamentals of Mathematics

This course will give the student practical number theory and analysis of the following basic operations: addition, subtraction, multiplication, division, fractions, decimals, powers and roots, percentages, ratio and proportion, plane and solid geometric figures used in industry, and measurement of surfaces

and volumes. Prerequisite: None.

MAT 1102 5 0 0 5 Algebra

This course covers the following basic concepts and operations of algebra: historical background of our base-10 number system, algebraic operations (addition, subtraction, multiplication, and division), fractions, letter representation, grouping, factoring, ratio and proportion, variations, graphical and algebraic solution of first-degree equations, solution of simultaneous equations by addition and subtraction, graphing, exponents, logarithms, tables, and interpolation. Prerequisite: None.

MAT 1103 3 0 0 3 Geometry

This course covers fundamental properties and definitions, plane and solid geometric figures, selected general theorems, and geometric construction of lines, angles, and plane figures. Also included are areas of plane figures, volume of solids, and geometric principles applied to shop operations. Prerequisite: None.

MAT 1104 3 0 0 3 Trigonometry

This course covers trigonometric ratios, solving problems with right triangles, using tables and interpolating, solution of oblique triangles using law of sines and law of cosines, graphs of the trigonometric functions, inverse functions, trigonometric equations, and all topics are applied to practical problems. Prerequisite: MAT 1102.

MAT 1114 5 0 0 5

Carpenter's Mathematics

This course includes practical problems which the carpenter must frequently solve including the fundamental ideas in geometry, areas, triangles, circles and volumes of geometric solids and cylinders. Prerequisite: MAT 1101 or equivalent.

MAT 1115 5 0 0 5 Elements of Mathematics I

A course designed for Electronic Servicing to include review of arithmetic, powers of ten, exponents, fundamentals of algebra, linear equations, fractions and applications. Prerequisite: None.

MAT 1116 3 0 0 3

Elements of Mathematics II

A course designed for Electronic Servicing to include trigonometry, complex numbers, quadratic equations, logarithms and applications. Prerequisite: MAT 1115 or equivalent.

MEC 101 1 0 6 3 Machine Processes I

This is an introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes in our modern industry. The course includes a study of measuring instruments, characteristics of metals, and cutting tools. The student will become familiar with the lathe family of the machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. Prerequisite: None.

MEC 102 1 0 6 3 Machine Processes II

This course covers advanced operations on lathe, drilling, boring, and reaming machines. The types of milling machines, cutter, jig, fixture devices, the accessories used in a modern industrial plant, and safety in the shop are also studied. Prerequisite: MEC 101.

MEC 104 5 0 0 5 Applied Mechanics

This course covers the concepts and principles of statics, parallel, concurrent and noncurrent force systems in coplanar and noncoplanar situations, concepts of centroids and center of gravity, and moments of inertia. Prerequisites: MAT 103 and PHY 111.

MEC 180 3 0 3 4 Programming for Manufacturing

This is a course in the planning, organizing, and execution of programs to improve manufacturing processes through the use of the microcomputer. Prerequisites: CET 106 and MEC 201 or by permission of department chairperson.

MEC 201 1 0 6 3 Manufacturing Processes I

The newer concepts of work handling, automatic machining processes, chipless production, new techniques in metal forming, analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling, computer numerical control system, and production methods in manufacturing are covered. Prerequisite: MEC 102.

MEC 202 2 0 6 4 Manufacturing Processes II

The newer concepts of work handling and automatic machining processes are

emphasized. Concentrated study of production methods in manufacturing is included. Prerequisite: MEC 201.

MEC 203 2 0 3 3 Welding Processes

This is basic study of all popular welding processes, including basic gas welding, basic arc, MIG, TIG, automatic flame cutting, and process applications. Operation of each process is limited to the extent required. Prerequisite: None.

MEC 205 3 2 0 4 Strength of Materials

This course includes a study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. An analysis of these stresses is made as applied to riveted and welded joints, beams, columns, and other components. Prerequisite: MEC 104.

MEC 206 3 4 0 5 Process Analysis and Estimating

This course focuses on the planning of operation sequences for efficient production, tool planning, and estimating. The operation of machine tools in production projects is required in laboratory exercises. Prerequisite: None.

MEC 210 3 0 3 4 Ferrous Metallurgy

This course is a beginning course in the field of metallurgy. The first quarter is concerned with the extraction, characteristics, and uses of ferrous metals. The student is given the opportunity to use basic metallurgical equipment during the laboratory part of the course. Prerequisite: PHY 112.

MEC 230 3 2 0 4 Hydraulics and Pneumatics

This is a course to introduce the student to the basic principles of hydraulics and pneumatics. General applications of fluid power systems will be studied, and the use of pneumatics in instrumentation and control will be covered. Prerequisites: PHY 111 and MAT 103.

MEC 235 3 0 3 4 Fluid Power

This course includes the basic theories of hydraulic and pneumatic systems; combinations of systems in various circuits; and the basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs. Prerequisites: PHY 111 and MAT 103.

MEC 237

3 2 0 4

Control Systems
This course covers the basic principles of electrical, electronic, and pneumatic control systems as related to industrial applications. The basic design and functions of circuits, motors, transducers, and servomechanisms, and a review of the National Electrical Code are included. Prerequisite: PHY 113.

MEC 240 3 2 0 4 Introduction to Robotics and CIM

This is a fundamental course in safe application, programming, and maintenance of robot devices and the relationship between robotics and computer integrated manufacturing (CIM) at the systems level. Prerequisites: MEC 235, MEC 237, and MEC 180.

MEC 1101 4 0 12 8 Machine Shop Theory & Practice I

This course provides an introduction to the machinist trade and the potential it holds for craftsmen. It deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments. Elementary layout procedures and processes on the lathe drill press, grinding (off-hand) machines, and milling machines are introduced both in theory and practice. Prerequisite: None.

MEC 1101A 2 0 6 4 Machine Shop Theory & Practice I (Part I)

This is the first part of a two-part course that provides an introduction to the machinist trade and the potential it holds for craftsmen. It deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments. Elementary layout procedures and processes on the lathe drill press, grinding (off-hand) machines, and milling machines are introduced both in theory and practice. Prerequisite: None.

MEC 1101B 2 0 6 4 Machine Shop Theory & Practice I (Part II)

This course is a continuation of MEC 1101A. Prerequisite: MEC 1101A.

MEC 1102 4 0 12 8 Machine Shop Theory & Practice II

Instruction is provided on advanced operations using layout tools and procedures, power sawing, drill press, surface grinder, milling machine, and shaper. Students will be introduced to the basic operations of the cylindrical grinder and select projects

encompassing all the operations, tools, and procedures thus far used and those to be stressed through the course. Prerequisite: MEC 1101.

MEC 1102A 2 0 6 4 Machine Shop Theory & Practice II (Part I)

This is the first part of a two-part course that includes instruction on advanced operations using layout tools and procedures, power sawing, drill press, surface grinder, milling machine, and shaper. Students will be introduced to the basic operations of the cylindrical grinder and select projects encompassing all the operations, tools, and procedures thus far used and those to be stressed through the course. Prerequisite: MEC 1101A & MEC 1101B.

MEC 1102B 2 0 6 4 Machine Shop Theory & Practice II (Part II)

This course is a continuation of MEC 1102A. Prerequisite MEC 1102A.

MEC 1103 3 0 12 7 Machine Shop Theory & Practice III

This course provides advanced work on the engine lathe; turning, boring, and threading machines; grinders; milling machine; and shaper. An introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, worm gears, and wheels is provided. The use of precision tools and measuring instruments such as vernier height gages, protractors, and comparators is provided. Basic exercises are done on the turret lathe and on the tool and cutter grinder. Prerequisite: MEC 1102.

MEC 1103A 2 0 6 4 Machine Shop Theory & Practice III (Part I)

This is the first part of a two-part course that provides advanced work on the engine lathe; turning, boring, and threading machines; grinders; milling machine; and shaper. An introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, worm gears, and wheels is provided. The use of precision tools and measuring instruments such as vernier height gages, protractors, and comparators is provided. Basic exercises are done on the turret lathe and on the tool and cutter grinder. Prerequisite: MEC 1102A and MEC 1102B.

MEC 1103B 1 0 6 3 Machine Shop Theory & Practice III (Part II)

This course is a continuation of MEC 1103A. Prerequisite: MEC 1103A.

MEC 1104 3 0 12 7 Machine Shop Theory & Practice IV

Class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly, and inspection are developed. The instruction provides for additional processes on the turret lathe, tool and cutting grinder, cylindrical and surface grinder, and advanced milling machine operations. Special procedures and operations, processes and equipment, faithful observance of safety procedures, and establishment of good work habits and attitudes acceptable to the industry are stressed. Prerequisite: MEC 1103.

MEC 1112 1 0 3 2 Machine Shop Processes

This course acquaints the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operations, hand grinding of drill bits and the lathe tools, and set-up work applied to the trade are provided. Prerequisite: None.

MEC 1113 1 0 3 2 CNC Lathe Operation

This course is an introduction to CNC machining and the operation of the CNC Lathe. A study of "G" codes, program writing, loading programs into the machine, editing programs, and the running of programs on the CNC Lathe are also included. Corequisite: MEC 1103 or equivalent machine shop experience. Prerequisite: MEC 1102 or equivalent machine shop experience.

MEC 1114 1 0 3 2 CNC Milling Machine Operation

This course will cover an introduction to CNC machining, the operation of the CNC vertical mill, a study of "G" and "M" codes, program writing, loading programs into the vertical mill, editing programs, and the running of programs on the CNC vertical mill. Corequisite: MEC 1104 or equivalent machine shop experience. Prerequisite: MEC 1103 or equivalent machine shop experience.

MEC 1115 2 0 3 3 Metallurgy for Machinists

This course provides an investigation into the properties of metals and tests to determine their uses. It includes the study of chemical, physical and mechanical properties of metals. Topics to be studied are identification of metals, extracting of metals from ores, classification of metals, heat treating of metals, and testing of metals. Prerequisite: None.

MEC 1117 2 0 3 3 Metallurgy for Welders

This course is specifically designed to introduce the welding student to the science of metallurgy with the aim of providing an understanding of the effects of welding heat upon the metals being joined. An understanding of the proper heat treatments of both ferrous parts and nonferrous parts gives students insight into how heat affects the welding process. During this course, the welder is introduced to hardness testing, mechanical testing, mechanical and nondestructive testing of welds, and metallographic techniques including microscopic examination of the structures of metals. Prerequisite: None.

MEC 1120 1 0 6 3 Machine Processes

This course is the study of practices used in metalworking shops and an introduction to how materials can be utilized. Demonstration of the metalworking lathes, drills, milling machines, shapers, and a study of the capabilities of these machines are also included. Prerequisite: None.

MED 110D 1 2 0 2 Medical Terminology & Records

An introduction to basic medical terminology and abbreviations focusing on understanding medical records. Prerequisite: None.

MUS 150 5 0 0 5 Music Appreciation

This course is designed to provide an introduction to all phases of music with the aim of developing a deeper understanding and appreciation of the field. Lectures, discussions, and listening assignments will cover the materials and elements, the forms and genres, and the periods and styles of music, as well as the contributions of the major composers. Prerequisite: None.

NMT 100 1 2 3 3 Introduction to Nuclear Medicine Technology

This course will provide the student with a comprehensive introduction to the field of nuclear medicine technology. The course will provide an overview of the school, program, profession, and history of the

profession; examine the types of procedures performed in nuclear medicine, general patient care and radiation safety practices; familiarize the student with the clinical areas and provide the student with the opportunity to acquire some basic clinical skills. Prerequisite: None.

NMT 106 2 0 0 2 Nuclear Medicine Technology II

This course will introduce students to their responsibilities as health care personnel. The emphasis of the course will be on various aspects of the student-patient relationship. The course will also deal with other interpersonal relationships that the students will face as members of the health care team. Prerequisite: NMT 100.

NMT 107 2 2 0 3 Nuclear Medicine Technology III

This course will introduce the student to the instrumentation of nuclear medicine and the area of the radiopharmacy. The emphasis of the course will be on the practical aspects rather than the theoretical aspects. Prerequisite: NMT 106.

NMT 108 3 0 0 3 Nuclear Medicine Technology IV

This course deals with In Vivo nuclear medicine procedures. A cookbook type of format will be used to present routine In Vivo procedures. Prerequisite: None.

NMT 111 2 0 0 2 Principles of Nuclear Medicine I

This course will deal with In Vivo nuclear medicine procedures. During the course, the students will examine studies pertaining to the central nervous system, pulmonary system, and gastrointestinal tract. Prerequisite: NMT 108.

NMT 116 2 0 0 2 Nuclear Physics

This course covers nuclear decay schemes and more complicated concepts of radioactive decay. Also discussed are interactions of radiation with matter and the calculations and measurement of radiation doses. Prerequisite: PHY 102.

NMT 117 2 0 0 2 Health Physics

During this course, students will study protective regulations, monitoring methods, techniques for reducing exposure of patients and technologists, and the Nuclear Regulatory Commission and N.C. Radiation Protection Program requirements. Prerequisite: None.

NMT 119 0 2 6 Introduction to Clinical Practice I

This is the first of a two-course series designed to introduce the student to the clinical practice of nuclear medicine technology. During the course, the student will be assigned to four clinical rotations. The student will assist the supervising technologist with the routine duties of each rotation. Prerequisite: NMT 100.

NMT 124 0 0 12 4 Introduction to Clinical Practice II

This is the second course in a two-course series designed to introduce the student to the clinical practice of nuclear medicine technology. During this course, the student will be assigned to six clinical rotations. The student will assist the supervising staff technologist with the routine duties of each rotation. Upon completion of this course, the student will have been exposed to all phases of the clinical practice. Prerequisite: NMT 100.

NMT 201 0 0 21 7 Clinical Practice

This is one of four courses designed to give the student an advanced understanding of clinical practice. The student will have three rotations selected to provide an opportunity to experience various aspects of nuclear medicine technology. Prerequisites: NMT 100, NMT 119, NMT 124, and BIO 108.

NMT 202 0 0 21 7 Clinical Practice

This is one of four courses designed to give the student an advanced understanding of clinical practice. The student will have three rotations selected to provide an opportunity to experience various aspects of nuclear medicine technology. Prerequisites: NMT 100, NMT 119, NMT 124, and BIO 108.

NMT 203 0 0 21 7 Clinical Practice

This is one of four courses designed to give the student an advanced understanding of clinical practice. The student will have three rotations selected to provide an opportunity to experience various aspects of nuclear medicine technology. Prerequisites: NMT 100, NMT 119, NMT 124, and BIO 108.

NMT 204 0 0 21 7 Clinical Practice

This is one of four courses designed to give the student an advanced understanding of clinical practice. The student will have three rotations selected to provide an opportunity to experience various aspects of nuclear medicine technology. Prerequisites: NMT 100, NMT 119, NMT 124, and BIO 108.

NMT 213 3 0 0 3 Principles of Nuclear Pharmacy

Students will receive classroom instruction related to the operation of a nuclear pharmacy. Topics covered will include mathematics, radionuclide generators, radiopharmaceuticals, quality control of radiopharmaceuticals, and common nuclear pharmacy procedures. Prerequisite: None.

NMT 220 2 0 0 2 Instrumentation I

This course will provide the students with basic information about nuclear medicine instrumentation. The course will focus on the operation of components that are common to the majority of the instruments used in nuclear medicine. In addition to the common components, the course will also examine the operation and utilization of common auxiliary devices. Prerequisites: MAT 116 and PHY 102.

NMT 221 2 0 0 2 Principles of Nuclear Medicine II

This course will deal with In Vivo nuclear medicine procedures. During the course, the students will examine studies pertaining to the skeletal system, the cardiovascular system, and the thyroid gland. Prerequisite: NMT 108.

NMT 225 3 0 0 3 Computers in Nuclear Medicine

This course will provide the student with a general introduction to the operation of computers and the application of computers to the field of nuclear medicine. Prerequisite: NMT 107.

NMT 231 2 0 0 2 Principles of Nuclear Medicine III

This course deals with In Vivo nuclear medicine procedures. During the course, the students will examine the studies pertaining to the urinary system, In Vivo lab procedures, and therapy procedures. Prerequisite: NMT 108.

NMT 235 2 2 0 3 Instrumentation II

This course will develop the students' understanding of the use of nuclear counting statistics and the operation of nuclear medicine instruments. The primary focus of the course will be on theory of operation of gas detectors and sodium iodide scintillation

detectors. In addition, the students will examine the operational characteristics, quality control procedures, and practical utilization of selected instruments. Prerequisite: NMT 220.

NMT 245 2 2 0 3 Instrumentation III

This is the last of three courses designed to develop the students' understanding of nuclear medicine instruments. The content of the course will include collimators, rectilinear scanners, gamma cameras, and computers. The primary focus of the course will be on theory of operation, operational characteristics, quality control procedures, and the practical utilization of the instruments covered. Prerequisite: NMT 220.

NMT 251

Principles of In Vitro Nuclear Medicine I
This is the first of two courses designed to develop the students' skills and knowledge in the area of In Vitro nuclear medicine. The focus of the course will be on laboratory skills, selected aspects of general chemistry, and selected aspects of biochemistry. Prerequisite: CHM 103.

NMT 258
2 2 0 3
Principles of In Vitro Nuclear Medicine II
This is the second course in a two-course series designed to develop the students' skills and knowledge in the area of In Vitro nuclear

and knowledge in the area of In Vitro nuclear medicine. The primary focus of the course will be on the principles of competitive protein binding assays and the procedure for common assays. Prerequisite: NMT 251.

NMT 289 2 0 0 2 Radiobiology

This is a course in which the fundamentals of radiology, a system's sensitivity to radiation (normal and neoplastic), radiation pathology, and the biological effects of radiation are stressed. Emphasis is placed on the effects of radiation and the effects of radiation absorption on tissue and tissue recovery rate. Prerequisite: NMT 116.

NMT 290 2 0 0 2 Nuclear Medicine Technology Seminar

This course gives students an opportunity to review any aspects of nuclear technology in which they have special interest. Guest speakers will be invited to present papers on special topics. Prerequisites: NMT 201, NMT 202, NMT 203, and NMT 204.

NMT 292

2 0 0 2

Nuclear Medicine Technology Review

This course will be a comprehensive review of the nuclear medicine program. The primary focus will be on routine procedures and information vital to a nuclear medicine technologist. The culmination of the course will be a comprehensive exam. Prerequisites: NMT 111, NMT 116, NMT 117, NMT 213, NMT 221, NMT 231, NMT 235 NMT 245, NMT 251, and NMT 289.

NMT 300 0 0 15 5 Clinical Practice Review

During this course, the student will be assigned to six clinical rotations. The rotations will be chosen to strengthen demonstrated weaknesses of the student's previous clinical performance. Prerequisites: NMT 201, NMT 202, NMT 203, and NMT 204.

NUR 119 2 2 0 3 Pharmacology

This course is designed to prepare the students for safe administration of medications. Emphasis is placed on the mathematics of drugs and solutions, methods of administration, and the general classification of pharmacological agents. Knowledge gained in pharmacology will be incorporated into the nursing process as it applies to nursing care. Corequisite: NUR 120.

NUR 120 4 2 6 7 Medical - Surgical Nursing I

This course provides the student an orientation to the body systems approach to nursing care, the nursing process, and an orientation to the field of health/adaptation. Included are an exploration of the events which have influenced the practice of nursing, the role of the nurse, legal aspects, and the way in which the community provides health services. An introduction to the body systems method of study begins with study of the dermatological system. Planned clinical experience is designed to teach the student basic nursing skills and provide introductory experience. Emphasis is placed on providing care to meet some of people's basic needs. Theory and clinical practice introduce the psychosocial system as a major component of caring for the patient. Adaptation of patient and family to the process of dying is also introduced. Corequisite: NUR 119.

NUR 122 5 2 6 8 Medical - Surgical Nursing II

This course emphasizes the use of the nursing process in the study of the musculoskeletal,

hematological, and renal systems. It stresses assessment, intervention, and evaluation for patients with common problems of the musculoskeletal, hematological, special senses, or renal systems. Included is an introduction to oncologic nursing. Planned clinical experience will concentrate on giving basic physical care, administering medications, using basic communication techniques, understanding defense mechanisms, and implementing health teaching. Prerequisites: BIO 107, NUR 119, and NUR 120.

NUR 124 4 2 12 9 Medical - Surgical Nursing III

This course allows the student to continue the body systems approach in utilizing the nursing process to provide nursing care. Consideration will be given to people's basic needs and ability to adapt to a constantly changing environment. Areas of study in theory and in the clinical setting: care of the surgical patient and patients with gastrointestinal, biliary, liver, pancreatic, and fluid and electrolyte disorders. Prerequisites: BIO 108, NUR 122, and NUT 101.

NUR 126 5 0 12 9 Medical - Surgical Nursing IV

This course allows the student to continue the body systems approach in utilizing the nursing process with special emphasis placed on endocrine, respiratory and cardiovascular disorders. Prerequisites: BIO 108, BIO 111, NUR 124, and NUT 101.

NUR 200 3 0 0 3 Nursing Seminar

The purpose of this course is to help prepare students for the transition from student to graduate. Areas to be discussed include applying for a position, the phenomenon of reality shock, dealing with conflicts in the clinical area, ethical dilemmas facing the nurse, current issues in nursing, and the impact of the Nurse Practice Act on nursing practice. Information on completing the application for licensure will also be included. During the course, students will be encouraged to examine value systems in relation to current issues and ethical dilemmas, to explore alternate choices in given situations, and to share the rationale for their decisions. Prerequisites: NUR 224, NUR 225, NUR 226, and NUR 227.

NUR 224 6 0 12 5 Psychiatric Nursing

This course is designed to provide a foundation of knowledge from which the

student will identify elements of healthy behavior as well as maladaptive behaviors of the psychosocial system that are indicative of psychiatric disorders. Emphasis is placed on continued development of the student's therapeutic nurse interpersonal relationship as it is related to assisting the psychologically distressed person. The history, current treatment modalities, the role of the nurse. legal aspects, and psycho-dynamics of behavior disorders will be stressed. The student will be introduced to various techniques and skills utilized in assisting people with psychiatric disorders to improve their sense of well-being and restore their psychological equilibrium. Instruction in these areas will be implemented through the use of self-study, group activities, audiovisual aids, demonstrations in clinical practice, community resources, lectures, and process recordings. Prerequisites: BIO 111, BIO 112, NUR 126, NUT 101, PSY 110, and SOC 103.

NUR 225 6 0 12 5 Maternal/Newborn Nursing

The complete maternity cycle will be presented with emphasis on family-centered care. Content will be offered in the physiological and psychosocial development throughout the childbearing experience, including infertility. This course will provide concepts regarding the roles of families and nurses in today's changing society. This course is also designed to give the students an opportunity to apply knowledge and skills gained in the study of the childbearing family. An opportunity will be given for the student to utilize the nursing process in planning care for families during the childbearing process with attention to people's basic needs and adaptive behavior. Health promotion will be emphasized. Prerequisites: BIO 111, BIO 112, NUR 126, NUT 101, and PSY 110.

NUR 226 6 0 12 5 Nursing of Children

This course is designed to focus on the care of children with emphasis placed on the study of commonly seen disease conditions. The approach used in this area of study will allow the student to assimilate previously acquired knowledge of people, basic needs, and the nursing process. This knowledge will be applied to individualized nursing care of children in the clinical setting. The course begins with an exploration of current pediatric nursing trends in the health care of children and child care laws. Emphasis will be placed upon the nurse's role in meeting the needs of the well child according to the

child's stage of growth and development as well as responding supportively to the child and family during periods of illness in the child's life. The preventive aspects of health promotion for children as well as the available community resources which focus on the needs of children will be discussed both in the classroom and clinical areas. Prerequisites: BIO 108, BIO 111, BIO 112, NUR 126, NUT 101, and PSY 110.

NUR 227 6 0 12 5 Nursing Care of the Older Adult

This course provides the student with the opportunity to utilize the nursing process in meeting the needs of the older adult in acute care, long-term care, and community settings. Special emphasis will be placed on the aging process as it applies to the body systems and developmental changes. Content will include pathological alterations commonly occurring in the older adult. Planned learning experiences will be designed to give the student contact with the older adult in a variety of situations. Prerequisites: BIO 108, BIO 111, BIO 112, NUR 126, NUT 101, and PSY 110.

NUR 228 4 0 18 10 Advanced Medical-Surgical Nursing I

This course provides the student an opportunity to integrate previously acquired knowledge of individual body system functioning and the nursing process and apply it to complex multisystem disorders. Emphasis will be placed on the designated multisystem disorders of shock, burns, and neurological dysfunctions. Prerequisites: BIO 108, BIO 111, BIO 112, NUR 224, NUR 225, NUR 226, NUR 227, and NUT 101.

NUR 229 4 0 18 5 Advanced Medical-Surgical Nursing II

This final course in medical-surgical nursing provides the students an opportunity to assimilate the previously acquired knowledge of people, body systems, the nursing process and health adaptation and to apply it to working with groups of patients. The area of focus deals with multisystem disorders. Planned learning experiences will also be designed to help the student manage care for groups of patients. Prerequisites: BIO 111, BIO 112, NUR 228, and NUT 101.

NUT 001 3 0 0 0 Basic Nutrition

This course is the study of basic nutrition with emphasis on functions and sources of nutrients needed for a balanced daily diet, including an overview of basic food elements. digestion, absorption, and metabolism. Prerequisite: None.

NUT 101 3 **General Nutrition and Diet Therapy**

This course introduces the basic principles of human nutrition and includes the major classes of nutrients and their utilization by the body. Factors affecting dietary habits, including fad diets, are presented. Nutritional requirements for various age groups are discussed. The applications and purpose of some common therapeutic diets and their relation to certain diseases are included in this course. Prerequisite: None.

ORI 101 Orientation

This course acquaints the student with the college and its resources and provides techniques for academic survival. Topics will include interpersonal skills, learning skills, campus resources, and college mechanics. Prerequisite: None.

PED 101 3 0 Fitness for Life

This course will be designed to explore and encourage positive health behavior through a program of good nutrition, stress management, and regular exercise. There will be a special focus on assessment of current fitness levels and the design of individual fitness programs. Prerequisite: None.

PED 102 0 3 1 **Fitness and Recreation I**

This is a general physical education course aimed at improving and maintaining physical fitness. Activities include individual and group exercise and sports. Prerequisite: None.

PED 103 1 Fitness and Recreation II

This is a general physical education course aimed at improving and maintaining physical fitness. Activities include individual and group exercise and sports. Prerequisite: None.

PHI 101 0 5 Introduction to Philosophy

This is an introduction to general philosophy designed to familiarize the student with the main philosophical ideas of both Western and Eastern thought from ancient to modern times. Students are urged to examine major concepts and apply them to their own value systems. Prerequisite: None.

PHY 001 2 n

Pretechnical Physics

This is a review of some of the basic concepts of physics. The topics included are systems of measurement, force and motion, and the properties of materials. Emphasis is placed on laboratory procedures and graphical analysis. Prerequisite: None.

PHY 100 0 0 3 **Introduction to Physics**

This course is an introduction to the problems and concepts of physics. The major areas covered are fundamental units and systems measurements, motion, forces. momentum, work, energy, and power. Quantitative problems involve the use of elementary algebra and trigonometry. Prerequisite: None.

PHY 101 0 Concepts in Physics

This course examines the concepts and problems of physics in the areas of measurement, motion, forces, energy, temperature and heat, fluids and gases. Quantitative problems involve the use of elementary algebra. Corequisite: RTH 109.

PHY 102 0 0 Electricity and Electronics

This is a study of electricity and electronics including the concepts of electric and magnetic fields, electric potential, electric circuits, and solid-state devices. Emphasis is on medical applications of electricity and electronics. Quantitative problems involve the use of elementary algebra and trigonometry. Prerequisites: MAT 113 and PHY 101 or PHY 100.

PHY 111 3 2 Physics - Mechanics

This is a fundamental course which develops the concepts of force, motion, work, energy, and power. Also included are the topics of vector analysis, rotational motion, and basic machines. Corequisite: MAT 102.

PHY 112 Physics - Materials and Heat

This is a course which examines the properties of solids, liquids at rest and in motion, gas laws and their application, heat and thermodynamics. Emphasis is on practical application through the use of realistic problems and laboratory exercises. Prerequisite: PHY 111.

2 0 4

Physics - Electricity

This is a study of the basic principles of electricity including electron theory, direct current circuits, alternating current circuits, electromagnetic interactions, and batteries. Emphasis is on practical application through the study of electrical power generation, transmission, and conversion devices. Prerequisite: PHY 111.

PHY 114 3 2 0 4 Physics - Light and Sound

This is a study of wave motion and the generation, transmission, and detection of sound and light. Topics include acoustics, illumination, optical devices, and lasers. Practical application is emphasized through exercises and acoustical analysis of buildings and lighting system design and layout. Prerequisite: PHY 111.

PHY 150 4 2 0 5 Introduction to Astronomy

This study includes observation of the day and night sky by use of binoculars, telescopes, and other simple instruments; learning to observe and measure properties of astronomical objects; and learning basic concepts of the solar system, stellar evolution, and cosmology. No science or math background will be required beyond the general requirements for the College Transfer program. Prerequisite: Admission to College Transfer program.

PHY 211 4 2 0 5 General Physics I with Calculus

This course is the first in a three-quarter sequence of calculus-based physics. Topics covered include linear and rotational kinematics and dynamics of particles, Newton's laws, work, energy, power, momentum and two-dimensional rigid body mechanics. Experimental verification of principles studied will form the basis of accompanying laboratory work. Prerequisite: MAT 125.

PHY 212 4 2 0 5 General Physics II with Calculus

This course is the second of the calculus-based physics sequence. Topics covered include properties of fluids and solids, wave motion and sound, temperature, heat, and thermodynamics. Verification of principles studied will form the basis of accompanying laboratory work. Prerequisite: PHY 211.

PHY 213 4 2 0
General Physics III with Calculus

This course is the third and final one in the sequence of calculus-based physics. Topics covered include magnetism and electromagnetism, alternating current, electromagnetic waves, geometrical optics, wave optics and atomic physics. Experimental verification of principles studied will form the basis of accompanying laboratory work. Prerequisite: PHY 212.

PHY 1101 3 2 0 4 Applied Science I

An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system, properties of solids and liquids, work and simple machines, and basic electrical principles. A major emphasis is on basic electrical concepts and the operation of electrical devices. Practical application stressed by use of realistic problems and laboratory exercises. Prerequisite: None.

PHY 1102 3 2 0 4

Applied Science II
This course is a student

This course is a study of the concepts of force, motion, work, energy, power, and heat. Practical applications are realized through the study of friction and simple machines and the relationship between thermal and mechanical energy. Prerequisite: None.

PHY 1103 3 2 0 4
Fundamentals of Electricity

This course is a study of elementary principles of electricity including the structure of matter and electron theory, basic electrical units, and the relationship of current, voltage, resistance, and power in series, parallel, and combination circuits. Prerequisite: None.

PHY 1104 3 2 0 4 Applied Science IV

This course is a study of wave motion and sound and light. Practical applications are stressed through the study of acoustics, musical sounds, color mixing, optical devices, illumination, and the laser. Prerequisite: None.

PHY 1114 3 2 0 4 Science for Printers

This course is designed to acquaint the student with some of the facts and principles concerning the properties and structure of matter. Major topics considered will be the general and specific properties of matter, atomic theory, physical and chemical

changes, theories of light, photometry, mirrors and lenses, reflection, refraction, and color. Prerequisite: MAT 1150.

PLU 1131 8 0 15 13 Plumbing I

This course is an introduction to the plumbing trade. It includes plumbing systems, use and care of hand tools, and selection of plumbing materials. The student will learn to solder copper pipe, cement plastic pipe, and pour lead joints. Plumbing layouts and the study of the North Carolina Plumbing Code will also be introduced. Prerequisite: None.

PLU 1132 3 0 15 8 Plumbing II

This course is a continuation of PLU 1131, Plumbing I. The student will practice "roughing-in" houses, which includes measuring for and cutting holes in stud walls; figuring proper slope in pipe; and locating stacks, stack vents, toilets, and drains. The student will also learn to determine the size of water and waste pipes and how to install them. The study of plumbing layouts and the North Carolina Plumbing Code will be continued. Prerequisite: PLU 1131.

PLU 1133 5 0 18 11 Plumbing III

This course is a continuation of PLU 1132, Plumbing II. General plumbing practice will be continued. However, in this quarter the student will assist in the selection and installation of all types of fixtures as well as the selection, installation, and servicing of water heaters. The study of plumbing layouts and the North Carolina Plumbing Code will be continued. Prerequisite: PLU 1132.

PLU 1134 3 0 21 10 Plumbing IV

This course is a continuation of PLU 1133, Plumbing III. The installation of plumbing will be continued. Additionally, the topics of plumbing repairs, troubleshooting, and unclogging drains will be covered. The study of layouts and plumbing codes will be concluded. Prerequisite: PLU 1133.

PNE 1103 4 0 0 4 Anatomy and Physiology

This course is the study of the general plan of the body and the nine systems. It is designed to help the student understand how the human body controls its functions, stands erect and moves, distributes food and oxygen, removes waste, and provides for species survival. Each unit contains a section of medical terminology. Prerequisite: None.

PNE 1105 3 0 0 3
Drug Administration I

This classroom course emphasizes safe techniques for drug administration. Basic arithmetic review, systems of measurement and practice in solving drug problems of measurement and conversion are included. Prerequisite: None.

PNE 1111 4 0 0 4
Drug Administration II

Theory and practice are given in this classroom course on computing dosages of oral and parenteral drugs. The student's role in drug administration is correlated with hospital policies. There is experience with equipment and techniques used in preparing and giving injections. Insulin therapy, medications for some common illnesses, and legal aspects of narcotic administration are studied. Prerequisites: PNE 1103, PNE 1105, and PNE 1301. Corequisite: PNE 1302.

PNE 1301 7 6 0 10 Fundamentals of Nursing

This course introduces the student to the role of the practical nurse in the clinical setting. Classroom theory is coordinated with practice in lab or clinical assignments. Emphasis is placed on using the nursing process to safely meet patients' basic needs. Skills of communication, observation, organization, and documentation are taught at a beginning level. Purpose and principles of the following procedures are included: enemas, catheterizations, binders and bandages, application of heat and cold, medical and surgical asepsis and care of the patient during IV therapy. Prerequisite: None.

PNE 1302 9 0 15 14 Medical-Surgical Nursing I

This course expands the knowledge of safe basic nursing care taught in Fundamentals of Nursing. Previously learned skills are related to specific needs of the following types of patients: geriatric, perioperative, the dying, cancer, and those with disorders of the endocrine, circulatory and reproductive systems. Also included are principles of rehabilitation, general causes of and the body's response to disease, and an introduction to diagnostic tests. Practicum is coordinated with classroom theory and provides the student with experience in participating in the nursing process in caring for adult patients. Emphasis is placed on participating in assessing the patient's physical and emotional health, performing nursing procedures, administering

medications (except intravenous), providing safe, effective care, communication skills and documentation. Prerequisites: 1301, PNE 1103, PNE 1105, PSY 101, and NUT 101. Corequisite: PNE 111.

PNE 1303 4 12 Maternal-Newborn Nursing (1/2 Otr)

This course presents the care of the maternal patient and the newborn. Physiological and common pathological changes and adaptations occurring during the maternal process and with the newborn as well as growth and development from conception through the newborn phase will be studied. Emphasis is placed on the importance of prenatal care in the prevention, detection, and treatment of conditions which affect maternal and/or neonatal health. Clinical practice assignments are coordinated with classroom theory and provide the student with experience in using the nursing process and adapting previously taught skills to care for the maternal and newborn patient. Prerequisite: PNE 1302.

PNE 1304 12 Child Health Nursing (1/2 Qtr)

This course presents physical and psychosocial aspects of growth and development and the care of children from infancy through adolescence. Included is a study of congenital anomalies, common childhood diseases and communicable diseases. Clinical practice assignments are coordinated with classroom theory and provide the student with experience in using the nursing process to care for children with common health problems taught in the classroom. Emphasis is placed on communication with children and parents. Prerequisite: PNE 1302.

PNE 1305 15 Medical-Surgical Nursing II

This course provides the student with a systems approach to the nursing care of patients with disorders of the following systems: respiratory, gastrointestinal and accessory organs, nervous, musculoskeletal, urinary and integumentary. Also included are common disorders of the eye, ear, blood and blood-forming organs and the immune response. Practicum assignments are coordinated with classroom theory and provide the student with experience in using the nursing process in the care of adult patients. Emphasis is placed on preparation for the role of the graduate practical nurse by further development of previously taught skills. Prerequisites: PNE 1303, PNE 1304. Corequisite: PNE 1306.

PNE 1306

Nursing Seminar

This course prepares the student for transition from student to graduate. Topics of discussion are career opportunities for the Licensed Practical Nurse, applying for and resigning a position, legal and ethical responsibilities, nursing organizations, leadership, continuing education trends and applying for licensure. Scope of practice for the Licensed Practical Nurse and other aspects of the Nurse Practice Act will be studied. Prerequisite: Must be a fourth-quarter student.

0

POL 102 National Government

This course is a study of English and Colonial background, the Articles of Confederation and the framing of the federal Constitution; the nature of the federal union, states' rights, federal powers, and political parties; and the general organization and functioning of the national government. Prerequisite: None.

POL 103 State and Local Government

This course is a study of American state and local governments, including interrelationships of national, state and local levels; powers of executive, legislative and judicial branches; selection of officials; and budgeting. Special attention is given to North Carolina and Winston-Salem. Prerequisite: None.

PRN 1131 12 10 **Introduction to Printing**

This course is an introduction to the printing trade. Instruction will include student orientation, a historical outline of graphic arts, familiarization of terms, equipment, and tools used in printing, and demonstrations of the equipment used in graphic arts. The student will be required to produce a printing project. Safe practices and safety rules are stressed. Prerequisite: None.

PRN 1132 12 Offset Printing I

This course is an introduction to offset printing. The operation of short-coupled, integrated dampening duplicators and longcoupled, register table duplicators will be covered. The student will be required to operate each of these pieces of equipment. Prerequisites: MAT 1150 and PRN 1131.

PRN 1133 11 15 Offset Printing II

A continuation of PRN 1132, Offset Printing I, this course will place emphasis on the use and maintenance of the larger press. Students will be introduced to the production of twothree-, and four-color printing. This course is also an advanced study of the process camera and related darkroom equipment. Prerequisites: PHY 1114, PRN 1132, and PRN 1134.

PRN 1134 3 Composition I

The students will be instructed in the methods of copy preparation and the use of equipment in that phase of graphic arts. Desktop publishing will be introduced in a new computer format. After the students learn how to prepare the copy, they will be required to produce one or more jobs. Prerequisites: MAT 1150, EDP 1101, and PRN 1131.

PRN 1135 Composition II

This course is a continuation of PRN 1134, Composition I. The major part of this course will be devoted to cold type and art composition by the digitized method. Machines covered will include the computer, laser printer, and headliner. Prerequisites: PHY 1114, PRN 1132, and PRN 1134.

PRN 1136 5 **Estimating**

This course covers fundamentals of estimating costs of printing. Included in the instruction are the role of the estimator, basic cost areas, paper and layouts, preparatory composition, the press, finishing, estimate forms, estimating practice, and use of the Franklin Catalog. Prerequisites: PRN 1133 and PRN 1135.

PRN 1137 0 21 0 **Printing Project**

The printing project will be determined after a conference between the instructor and student. The project will be in an area in which the student has had the fundamentals. Prerequisites: PRN 1133 and PRN 1135.

PRN 1150 5 **Printer's Mathematics**

This course deals with printer's point system as it applies to type spaces, furniture, and other spacing materials, as well as problems in spacing outlines and centering heads. Instruction and practice will be given in reading a micrometer. Problems in cutting paper economically, in figuring the amount, and in measuring the thickness of papers and offset plates will be used. Prerequisite: None. Postal Service History and Organization This course is designed to trace the delivery of written communication and merchandise from earlier eras to the present. It compares the private, corporate, and governmental agencies which have been responsible for mail service throughout the world, but particularly in the United States. The current postal organization as mandated by public law 91-37B is studied. Postal philosophies, policies, procedures, rules and regulations

PSM 101 5 Postal Service Labor Management

are also studied and traced to the current

organization. Prerequisite: None.

The course presents an overview of laws and practices as related to Labor-Management in the Postal Service. It starts with the development of labor unions in the federal government and reviews the current status. problems, and/or issues in the Postal Service. Emphasis is placed on the National and Local Agreements, the various bargaining units and associations in the U.S. Postal Service, grievance procedures, disciplinary action procedures, and the National Labor Relations Board. Prerequisite: None.

PSY 101 3

Psychology

5

This course is geared to study the principles of human behavior with reference to thinking. learning, memory, perception, emotional life, individual differences in intelligence, aptitude, personality, the scientific nature of psychological investigations, and research findings related to daily life. Prerequisite: Meet the required reading score on placement test to enter curriculum or permission of the department chair.

PSY 102 0 0 5 General Psychology

This course is a study of the various fields of psychology: the developmental process, motivation, emotion, frustration and adjustment, mental health, attention and perception, and problems of group living. Attention is given to applications of these topics to problems of study, selfunderstanding, and adjustment to demands of society. Prerequisite: Meet the required reading score on placement test to enter curriculum or permission of the department chair.

PSY 108 5 5

Abnormal Psychology

This course offers an introduction to behavior

pathology. The etiology, diagnosis, and prognosis of abnormal behavior, neurosis, psychosis, character disorders, and psychosomatic reactions are among the topics included in the study. Prerequisite: PSY 101 or PSY 102.

PSY 110 3 0 0 3 Lifespan Psychology

This course will deal with the human life span from conception through old age. It is intended to give the student a thorough grounding in the basic principles of developmental psychology. Emphasis will be placed on the theories of Ericson, Piaget and Havighurst. Physiological and psychological critical periods in the development of the individual will be identified and their implications explored. Special attention will be given to the stress periods of childhood, adolescence, middle age, and old age. Prerequisite: PSY 101 or permission of the instructor.

PSY 111 3 0 0 3 Abnormal Behavior

This course offers an introduction to behavior pathology. Students will be given a basic grounding in the etiology, diagnosis, and prognosis of various kinds of abnormal behavior. Topics in the study will include neurosis, psychosis, addiction, suicide, character disorders, psychosomatic reactions, childhood disorders, and geriatric disabilities. Prerequisite: PSY 101 or PSY 102.

PSY 112 3 0 0 3 Personality Development

This course is designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Grooming and methods of personality development are emphasized. Prerequisite: None.

PSY 115

3 0 0 3

The Psychology of Helping Relationships
This course is designed to help the student develop an awareness of attending skills including perception, self-concept, interpersonal communication and an understanding of the importance of these skills and their use in providing support and comfort in human relationships. Prerequisite: Enrollment in health curriculum or permission of department chairperson.

PSY 116 1 0 0 1 Stress Management

This course is designed to assist students in understanding the effect stress can have on their psychological and physical well-being. Students will be assisted in identifying their personal sources of stress and assessing their current coping strategies. Students will be taught how to successfully manage stress through using a variety of proven stressmanagement techniques. Prerequisite: None.

PSY 117 1 0 0 1
Death and Grief

This course will examine American cultural responses to death, developmental understandings of death, and students' personal experiences with death. Students will explore personal and cultural reactions to various kinds of death experiences including catastrophic and mass deaths, suicide, homicide, and euthanasia. The experience of grief will be covered, and students will be taught appropriate responses to people who are dying and grieving. Special attention will be given to the role of the health care professional as it relates to death and grief. Prerequisite: None.

PSY 205 3 0 0 3 Child Psychology

The objective of this course is to consider the significant phases of motor, cognitive, emotional, and social development of the child as these are influenced by genetic, cultural, and individual elements from the prenatal period to adolescence. Prerequisite: PSY 101 or PSY 102.

PSY 206 3 0 0 3

Applied Psychology

This is a study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings, and emotions are considered with particular reference to onthe-job problems. Other topics investigated are employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to adjustment problems as a worker and as a member of the general community. Prerequisite: None.

PSY 254F 5 0 0 5 Grief Psychology

This course presents the role of the funeral director in grief counseling. Emphasis is placed on making the funeral director more aware of the psychological needs the impact of death creates in the bereaved. Upon completion, students will be able to apply the concepts of death, dying, immortality, grief, bereavement, religion, and the funeral in a

funeral services vocation. Prerequisite: PSY 101.

PSY 1101 3 0 0 3 Human Relations

This course is a development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and the work situation in relation to society, group membership, and relationships within the work situation are included. Prerequisite: None.

RAD 201 2 0 0 2 CT Physics and Instrumentation

This course provides a foundation for student understanding of the physical principles essential to computerized tomography. Functions and technologist operation of the gantry, console, hardcopy recording equipment and computer software are explored. The keyboarding commands specific to various equipment manufacturers will be reviewed. Prerequisite: Enrollment in Computerized Tomography Certificate program.

RAD 202 4(2) 0 0 2 MRI Physics and Instrumentation (1/2 quarter)

The physical basis for magnetic resonance imaging is explored to include MR signals, spectroscopy, and MRI parameters. Topics for discussion also include imaging hardware design and operation of the gantry, console, image recording equipment and system software. Variations in manufacturer design will be reviewed. Prerequisite: Enrollment in MRI Certificate program.

RAD 204 3 0 0 3 CT Procedures

Body section anatomy as evidenced through CT imaging will be discussed in depth. Imaging protocols for routine and special studies are outlined to include contrast media enhancement. Venopuncture techniques are practiced. Prerequisite: Enrollment in Computerized Tomography Certificate program.

RAD 205 6(3) 0 0 3 MRI Procedures (1/2 quarter)

Body section anatomy as demonstrated through MRI scanning will be studied thoroughly. Discussion will outline selection of appropriate gradient coils, scanning protocols and image enhancing contrast agents. Technologist actions to insure optimum patient care and to reduce both

patient and personnel safety risks are stressed. Prerequisite: Enrollment in MRI Certificate program.

RAD 214 0 0 24 8 Introduction to CT Imaging

The student will gain experience in computerized tomography imaging in the clinical setting. Emphasis for study will include gantry and console equipment operation, patient positioning and care, administration of contrast media, hardcopy recording and protocol selection. Prerequisite: Enrollment in Computerized Tomography Certificate program.

RAD 215 0 0 24(12) 4 Introduction to MR Imaging (1/2 quarter)

Clinical experience will introduce the student to gantry and console operation. Technologist action in image recording, administration of contrast media and scanning protocol are learned. Prerequisite: Enrollment in MRI Certificate program.

RAD 224 4(2) 0 30(15) 7 CT Imaging Practicum (1/2 quarter)

The second practicum course progresses the student toward independent clinical practice. The refinement of technologist skills is stressed. Practicum and classroom instruction helps the student to identify image artifacts and to prescribe methods for image quality improvement. Case studies are used to demonstrate image quality assurance measures and to provide experience in viewing those pathologies indentified by computerized tomographic scanning. Prerequisite: RAD 214.

RAD 225 2 0 30 12 MRI Practicum

The student moves toward independent clinical practice in imaging and patient care techniques. Didactic instruction emphasizes improvement of image technical quality, limitation of artifact and resolution of technologist-controllable technical problems. Case studies point out protocol selection and pathology demonstration in the modality. Prerequisite: RAD 215.

RAD 231 3 0 0 3 Patient Care and Monitoring

The student will be introduced to the special support care and monitoring needed by the patient in radiographic special procedures. Informed consent, patient education, charting, and reaction to contrast media introduction are emphasized. Maintenance of sterile fields

is discussed. Prerequisite: Enrollment in Imaging Technology curriculum.

RAD 235 3 0 0 3

Equipment Instrumentation

The use and operation of catheters, guidewires and needles is examined. Correct utilization and preventive maintenance of film magazines, rapid film changers, cine equipment, radiographic tubes, tables, consoles and electromechanical injectors is outlined. Prerequisite: Enrollment in Imaging Technology curriculum.

RAD 236 2 0 0 2 Radiographic Pharmacology

Medications and contrast medias utilized in special radiographic imaging are studied as to indications, administration and adverse reactions. The technologist's role in assisting in drug administration as well as patient monitoring is explored. Prerequisite: Enrollment in Imaging Technology curriculum.

RAD 239 0 2 21 8 Clinical Experience I

The first in a series of four clinical courses, this course introduces the student to the role of the special imaging technologist. Equipment operation is stressed as is the needed physical and psychological patient support. Lab exercises include the mechanics of sterile fields and radiographic accessories. Corequisite: RAD 231.

RAD 240 4 0 0 4 General Vascular Imaging

The anatomy and procedural aspects of performing vascular interventional studies of the head, trunk and extremities are examined. Patient preparation, imaging techniques and equipment selection are outlined for student understanding. Prerequisites: RAD 231, RAD 235.

RAD 249 0 0 21 7 Clinical Experience II

Students gain additional experience in vascular studies of the head, trunk and extremities and cardiovascular system. Emphasis is placed on selection of equipment, patient positioning and imaging techniques for optimum visualization. Prerequisite: RAD 239.

RAD 253 4 0 0 4

Cardiovascular Imaging

The radiographic examinations for anatomical and dynamic demonstration of the cardiovascular system are discussed. The

technologist's role in performing diagnostic procedures for physiologic monitoring is studied. Cardiovascular anatomy and physiology are stressed. Prerequisites: RAD 231, RAD 235.

RAD 255 2 0 0 2 Image Evaluation I

Evaluation of angiographic studies of the head, trunk and extremities is undertaken. The student will present selected studies and assess image quality, radiographic anatomy and patient pathology as demonstrated on the exam. Prerequisites: RAD 240, RAD 249.

RAD 259 0 0 24 8 Clinical Experience III

The student progresses to more independent practice in vascular and cardiovascular procedures. Assisting the physician and patient assessment become key elements for student growth in clinical practice. Prerequisite: RAD 249.

RAD 260 3 0 0 3 Quality Assurance

Components of a complete quality assurance program for the vascular/cardiovascular interventional department are investigated. The student will select a research project in departmental operations or trends in clinical practice for presentation. Prerequisite: RAD 259.

RAD 262 2 0 0 Image Evaluation II

Evaluation of cardiovascular angiography exams is the focus of this course. Through student presentation, selected exams are viewed for their diagnostic and technical adequacy. Identification of cardiovascular anatomy and pathology is stressed. Prerequisite: RAD 253.

RAD 269 0 0 30 10 Clinical Experience IV

Clinical experience provides the student with the skills needed for independent practice and entry into the workplace. Prerequisite: RAD 259.

RDT 112 2 0 0 2 Introduction to Patient Care Techniques Considerations for study include the patient care responsibilities of the radiographer, principles of body mechanics and effective patient-technologist communication. Radiographer reaction to acute patient care situations is also discussed. Prerequisite: None.

Departmental Orientation and Medical **Ethics and Law**

Students will be introduced to the operational aspects of the radiology department through both classroom and clinical experience. Emphasis for study includes basics of radiation protection and insights into medical ethics and law needed by the technologist. Prerequisite: None.

RDT 114 2 15

Basic Essentials of Radiologic Technology The student is introduced to the basic essentials of Radiologic technology. Included is a preliminary overview of radiographic and fluoroscopic equipment and the principles of automatic processing. Basic technical factors and radiographic accessories are discussed with emphasis placed on their effect on equipment utilization and operation. The student uses the clinical hours to fortify these basic essentials. Prerequisites: RDT 112 and RDT 113.

RDT 120 Radiation Physics

The basic principles behind atomic theory, magnetism, electricity, radioactivity and xray circuitry as related to the radiologic sciences are presented. Prerequisite: RDT 114.

RDT 130 3 **Radiation Biology and Protection**

The effects of radiation on the individual cell, organ systems, and the body as a whole are explored. Protective regulations, monitoring devices and reporting procedures for radiation exposure to patient and worker are presented. The effects of radiation and their link to medical use of radiation protection measures are stressed. Prerequisite: RDT 120.

RDT 137 2 0 Radiographic Technique I

This course introduces the student to the basic concepts of radiographic production. Laboratory experiences provide the student with opportunities to test the principles of radiographic exposure and usage of accessory equipment. Prerequisite: RDT 114.

RDT 138 15 Practicum I

Clinical and energized lab experience is utilized with special emphasis on positioning, technique and accessories used in radiography of the upper extremities, chest and abdomen. Prerequisite: RDT 114.

RDT 139 Positioning and Related Anatomy I

This course will deal with radiographic positioning of the upper extremity, shoulder girdle, foot, ankle, and lower leg. Special emphasis is placed upon the osseous radiographic anatomy of the particular structure. Prerequisites: BIO 108, BIO 115. and BIO 116.

RDT 148 2 15 6 Practicum II

Clinical and energized laboratory experience is utilized with special emphasis placed on positioning, technique and accessories needed in radiography of the knee, femur, hip and pelvic girdle. Prerequisite: RDT

RDT 149 3 Positioning and Related Anatomy II

This course includes radiographic positioning of the proximal lower extremity and the entire vertebral column. Special attention is given to bony anatomy of the areas studied. Prerequisite: RDT 139.

RDT 233 Seminar

Current advancements in technology in the field are identified and discussed. Students will select a topic for research and presentation. Prerequisite: None.

RDT 237 3 Radiographic Technique II

An in-depth study is presented in the selection of exposure factors and the proper use of grids, cones, and other devices which may be employed to produce high quality radiographs. Prerequisite: RDT 137.

RDT 248 2 21 **Practicum III**

Clinical and energized laboratory experience concentrates on positioning, technique and accessories used in radiography of the vertebral column. Prerequisite: RDT 148.

RDT 250 0 3 Special Procedures I

This course provides in-depth study into radiographic procedures requiring special imaging or approach techniques to areas previously difficult to visualize. Representative procedures conventional body section radiography, computed tomography, stereoradiography and special contrast media studies of the organ systems of the head, chest, and abdomen. Cross sectional anatomy is studied

RDT 252 3 0 0 3 Special Procedures II

Emphasis for study consists of angiographic procedures for demonstration of the vascular structures of the cranium, trunk and extremities. Introduction is provided to the imaging technologies to include medical sonography, magnetic resonance imaging and digital radiography. Prerequisite: RDT 250.

RDT 254 3 0 0 3 Departmental Administration and Quality Assurance

This course analyzes the operational aspects of aradiology department to include finances, employee supervision, scheduling and other special problems. Organization and implementation of a departmental quality control program are discussed. Prerequisite: None.

RDT 258 0 2 21 8 Practicum IV

Radiographic positioning of the cranium as a whole and paranasal sinuses is stressed through clinical and laboratory experience. Emphasis is placed on technique and accessory equipment selection. Prerequisite: RDT 248.

RDT 261 2 0 0 2 Pediatric, Emergency and Operative Radiography

Procedures utilized in radiography of pediatric, operative and emergency radiographic examinations are examined. Discussion of positioning, technical factor selection and special care needed during these exams is pursued. Prerequisite: RDT 137.

RDT 268 0 2 21 8 Practicum V

Clinical and energized laboratory experiences emphasize positioning technique and accessories used in radiography of the individual bony segments of the cranium. Prerequisite: RDT 258.

RDT 269 3 0 0 3 Positioning and Related Anatomy III

This course investigates anatomy and radiographic positioning of the gastrointestinal, biliary and urinary systems. Applications for radiographic equipment and accessories are presented. Prerequisite: RDT 149.

RDT 278

Practicum VI Clinical and energized laboratory experience stresses refinement of positioning and technique skills in special and routine

2 21

radiographic studies. Emphasis is placed on emergency radiography. Prerequisite: RDT 268.

RDT 279 3 0 0 3 Positioning and Related Anatomy IV

The basics of bony skull anatomy, positioning of the cranium and application for equipment/accessories needed for cranial radiography are studied. Specialized filming techniques of the paranasal sinuses, facial bones, centers of hearing and mandible are included. Prerequisite: RDT 269.

RDT 283 2 0 0 2 Radiographic Pathology

Pathological conditions which can be demonstrated radiographically are discussed as to their appearance on the radiograph. Focus for study is procedures and techniques the technologist can utilize to best demonstrate pathologies present. Prerequisite: None.

RDT 289 2 0 0 2 Film Critique I

The first in a series of four film critique courses, this course introduces the basics of film quality analysis. Students present radiographs of the upper and lower extremity, chest and abdomen for evaluation. Prerequisites: RDT 138 and RDT 139.

RDT 290 2 0 0 2 Film Critique II

Study emphasizes quality analysis of radiographs performed of the vertebral column. The adequacy of technical factors, part demonstration and overall diagnostic value are considered. Prerequisite: RDT 289.

RDT 291 2 0 0 2 Film Critique III

This course deals with the critical analysis of radiographs of the cranium. Recognition of correct alignment and demonstration of skull anatomy are stressed. Prerequisite: RDT 290.

RDT 292 2 0 0 2 Film Critique IV

Radiographs from special radiographic procedures are assessed as to their adequacy of part positioning, anatomy visualized and technical quality. Representative special

studies for consideration include xeromammography, contrast media exams, body section radiographs and operative procedures. Prerequisite: RDT 291.

RDT 301 1 0 0 1 Current Issues in Radiology Mgmt.

Changes and innovations in staffing methods, imaging techniques, effective management by goal setting and objectives, and governmental radiation regulations will be presented for discussion. Legal aspects of technology and the growing accountability of the technologist will be considered. Emphasis will be placed on the application and long term results of implementation of current trends in departmental operations. Prerequisite: Enrollment in seventh quarter RDT curriculum or graduate of an AMA approved RDT program or permission of the RDT department chairperson.

RDT 302 1 0 0 1
Effective Communication: Technologist,
Patient and the Health Team

The role of the technologist in the health team will be examined. Communication skills necessary for effective communication, both oral and written, will be identified. Communication mechanisms needed for the exceptional patient will be explored through role play and discussion. Prerequisite: Enrollment in seventh quarter RDT curriculum or graduate of an AMA approved RDT program or permission of the RDT department chairperson.

RDT 303 1 0 0 1
Technologist Motivation in the Radiology
Setting

The various ideologies of motivation will be discussed. Effective motivators for technologists possible in the clinical setting will be identified. Also to be considered is the use of an employee appraisal system as a motivator for technologist behavior. Prerequisite: Enrollment in seventh quarter RDT curriculum or graduate of an AMA approved RDT program or permission of the RDT department chairperson.

RDT 304 1 0 0 1 Preparation for the National Radiologic Technology Boards

The content specifications for the national examination in Radiography are the basis for this overview study of varied test topics. Test-taking skills are applied in sample test items to improve the test taker's performance. Prerequisite: Enrollment in seventh quarter RDT curriculum or graduate of an AMA

approved RDT program or permission of the RDT department chairperson.

REA 100 3 0 0 3 Introduction to Real Estate Appraisal (R-1)

This course introduces the student to the subject of real estate appraisal and prepares the student for the R-2 course on "Valuation Principles and Procedures." It begins with coverage of basic real property law, followed by coverage of the various concepts of value and the operation of real estate markets. Relevant mathematical concepts are then reviewed and the student is introduced to statistical concepts used in appraisal practice. Next comes coverage of real estate financing terminology and practices, followed by an introduction to the basics of residential construction and design. The student is then provided an overview of the entire valuation (appraisal) process, and the course concludes with specific coverage of residential neighborhood analysis and property analysis, two of the most important preliminary steps in the appraisal process. Prerequisite: None.

REA 101 Valuation Principles and Procedures (R-2) This course focuses on the procedures (methodology) used to develop an estimate of property value and how the various principles of value relate to the application of such procedures. Emphasis is on appraisal of residential 1-4 unit properties and small farms: however, all the concepts and procedures covered are applicable to the appraisal of all types of properties. The course begins with a review of the appraisal process and proceeds into thorough coverage of the sales comparison approach, followed by site valuation methods used to appraise residential 1-4 unit properties. The cost approach is then covered in depth. The basic concepts and methodology associated with the income approach are covered, with emphasis on direct capitalization using an overall rate and the gross rent multiplier technique. Finally, the student is introduced to the process of reconciling property value estimates obtained through application of the approaches to value. Prerequisite: REA 100.

REA 102 3 0 0 3 Applied Residential Property Valuation (R-3)

This course covers laws, rules, and standards which must be followed by appraisers and focuses on the application of principles and procedures to the appraisal of residential 1-4

unit properties and small farms. The student is first acquainted with federal laws/ regulations applicable to appraisers and the provisions of the North Carolina Real Estate Appraisers Act and related Commission Rules. Next comes coverage of the Uniform Standards of Professional Appraisal Practice (which are part of the Commission's Rules). followed by coverage of appraisal reports, with emphasis on standard report forms. The student then participates in a comprehensive case study of an appraisal of a single-family house using the URAR form. Instruction is then provided on various special considerations in appraising other types of residential 1-4 unit properties and in appraising farms. Finally, the student is introduced to appraising special (partial) property interests and to condemnation appraisals. Prerequisites: REA 100 and REA 101.

REA 200 3 0 0 3 Introduction to Income Property Appraisal (G-1)

This course introduces concepts and techniques used to appraise real estate income properties. It begins with a discussion of underlying economic principles and motivations for investing in income property. The appraisal process is then reviewed with emphasis on income property. This is followed by a discussion of real estate market analysis, property analysis, and site valuation. Mathematical and statistical concepts used in the appraisal of income property are covered next followed by coverage of how to use financial tables and/or financial calculators to solve a variety of problems associated with analysis of real estate income properties, including present value, loan calculations, estimation of net operating income, and estimation of before-tax cash flow. Next, students learn how to estimate the value of a real estate income property by using a gross income multiplier and by direct capitalization with an overall rate. Finally, students are introduced to other capitalization rates. Prerequisites: REA 100, REA 101, and REA 102.

REA 201 3 0 0 3 Advanced Income Capitalization Procedures (G-2)

This course reviews and then expands on the concepts introduced in Course G-1. The direct capitalization techniques introduced in G-1 are expanded to include various band of investment and residual techniques used in income property appraisal. This is followed by a thorough discussion of the concepts of

yield rates and of discounted cash flow analysis (yield capitalization), which is the primary focus of this course. Financial leverage is also discussed so students better understand the relationship between various yield rates and capitalization rates. Several traditional yield capitalization formulas including Inwood, Hoskold, Ellwood and Akerson, are then discussed. Although rendered obsolete by the advent of financial calculators, these formulas are still used by many appraisers and students should be familiar with them. A financial calculator is required for this course. Prerequisite: REA 200.

REA 202 3 Applied Income Property Valuation (G-3) This course covers laws, rules, and standards which must be followed by appraisers and focuses on the application of principles and practices to the appraisal of income properties. The course begins with a review of federal laws/regulations applicable to appraisers, followed by coverage of the North Carolina Real Estate Appraisers Act and related Commission Rules, and coverage of the Uniform Standards of Professional Appraisal Practice (which are part of the Commission's Rules). Preparation of narrative appraisal reports is then covered, with students also being introduced to the Uniform Commercial and Industrial Appraisal Report (UCIAR) form. Coverage then shifts to appraising leased income properties, with emphasis on the effect of various lease provisions on the value estimate. The student then participates in highest and best use case studies, followed by case studies of appraisals of various types of existing income properties, which is the major focus of the course. The course concludes by covering considerations in appraising various development projects. Prerequisites: REA 200 and REA 201.

RTH 109 0 6 0 3 Respiratory Care I

This course will provide the student with a general orientation to the hospital setting and the respiratory care profession. The student will learn the following basic patient care procedures and skills: patient monitoring, infection control, patient positioning, body mechanics, medical-legal aspects and patient charting. Prerequisite: None.

RTH 111 0 2 6 3

Clinical Experience I

An introductory first clinical course in which the student will be oriented to the hospital and respiratory care environments. The student will use the pre-clinical laboratory for learning and practicing basic patient and respiratory care procedures prior to actual clinical performance. Emphasis will be placed on support of subject matter covered in RTH 119. Prerequisites: BUS 141 and RTH 119. Corequisite: RTH 119.

RTH 112 0 2 12 5 Clinical Experience II

The student will continue to rotate in the general care areas of the hospital(s) and practice the following basic respiratory care procedures: Oxygen and humidity/aerosol therapy, lung inflation techniques, chest physical therapy techniques, respiratory secretion removal and collection techniques, administration of airway pharmacologic agents, and airway management techniques. Students will also rotate through hospital decontamination areas and the respiratory care biomedical section. The pre-clinical laboratory will be utilized to practice advanced patient assessment techniques and to support subject matter covered in RTH 129 prior to clinical performance. Prerequisites: RTH 111 and RTH 119. Corequisite: RTH 129.

RTH 113 0 2 12 5 Clinical Experience III

This course will provide the student clinical rotations involving procedures from previous and parallel RTH courses. Introduction to emergency and critical respiratory care, ECG department, blood gas laboratory, cardiac catheterization lab, Anesthesia/Surgery observation and clinical microbiology lab experiences will also be conducted. Students will utilize the preclinical laboratory for the practice of related procedures. Prerequisites: RTH 159, RTH 150 and BIO 169. Corequisites: RTH 160

RTH 119 2 2 0 3 Respiratory Care II

and 170.

This course will enhance the student's knowledge of physical and chemical properties of gases and gas physics. Emphasis will be placed on theory of operation and technical aspects of basic Respiratory Care equipment. Laboratory hours will be used to support use of equipment and concepts learned in this course. Chest physical therapy including postural drainage percussion, vibration and related techniques will be addressed. Prerequisite: RTH 109, PHY 101, MAT 113.

RTH 129

119.

Respiratory Care III
This course will focus on airway management, aids to lung inflation, manual resuscitators, oxygen analyzers, equipment decontamination and bedside monitoring equipment and techniques. Prerequisite: RTH

RTH 149 2 0 0 2 Cardiopulmonary Anatomy and Physiology: Essentials for Respiratory

This is the first of a series of two courses designed to provide a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care. Ventilation, basic pulmonary function measurements, diffusion of pulmonary gases, the respiratory and circulatory systems as well as an introduction to hemodynamic measurements will be covered. Prerequisites: PHY 101 and BIO 107.

RTH 150 3 0 0 3 Pharmacology

This course, through lectures and demonstrations, will provide the student with a working knowledge of pharmacological effects, side effects, contraindications, and use of the major classes of drugs. Special emphasis will be placed upon those drugs affecting the respiratory system and the autonomic nervous system. Prerequisites: BIO 108 and MAT 114.

RTH 159 3 0 0 3 Cardiopulmonary Anatomy and Physiology: Essentials for Respiratory Care

This course is a continuation of RTH 149 and will cover oxygen transport, carbon dioxide transport, acid-base balance, blood gas interpretation, ventilation-perfusion relationships, control of ventilation, renal failure and its influence on the cardiopulmonary system and other topics related to their influence on the cardiopulmonary system. Emphasis will be placed on clinical application and related physiologic calculations. Prerequisite: RTH 149, RTH 119, BIO 108 and MAT 114.

RTH 160 1 0 0 1
Topics in General and Cardiopulmonary
Surgery

This course is a lecture series on the various general and cardiopulmonary surgeries. Emphasis will be on the general principles of anesthesia and pre- and postoperative respiratory care. Prerequisites: RTH 159 and BIO 169.

This course is designed to provide the student with a knowledge of the electrocardiogram (ECG) and cardio-hemodynamic monitoring techniques and arterial-line insertion. Emphasis will be placed on cardiac dysrhythmia recognition, treatment protocol, performing the 12-lead ECG, advanced hemodynamic monitoring and related physiologic calculations. Prerequisites: RTH 159, RTH 150, and BIO 169.

RTH 180 3 0 0 3 Cardiopulmonary Diseases

The etiology, classification, diagnosis, progression, treatment, and prognosis of the most frequently encountered cardiopulmonary diseases will be discussed. Prerequisites: RTH 129, RTH 159 and BIO 169.

RTH 215 2 2 0 3 Ventilators

The technical aspects of adult mechanical ventilators will be taught. Emphasis will be placed on theory of operation of ventilator components, assembly of patient circuits and monitoring devices, as well as selected adult ventilators in current use. Prerequisite: RTH 129.

RTH 218 0 2 12 5 Clinical Experience IV

The student will begin rotations through the adult critical care areas where emphasis will be given to advanced airway management, hemodynamic monitoring and management of the patient-ventilator system. An introductory rotation through the cardiopulmonary lab will also be conducted. The pre-clinical laboratory will be utilized for student practice of procedures and techniques related to adult critical care. Prerequisites: RTH 113, RTH 160, RTH 170, and RTH 180. Corequisites: RTH 215, RTH 268 and RTH 220.

RTH 220 2 0 3 Adult Critical Care

This lecture and laboratory course will cover various topics related to the practice of respiratory care of the critically ill adult patient. Emphasis will be placed on management of the patient-ventilator system, advanced airway management and medical/ surgical problems common in critically ill adult patients. Prerequisites: RTH 160, RTH 170, RTH 180 and RTH 113.

RTH 228 0 2 12

Clinical Experience V

The student will continue with rotations through the adult critical care areas and will begin introductory rotations in pediatrics and the pediatric and neonatal intensive care units. Clinical practice rotations in the cardiopulmonary laboratories will also be conducted. The pre-clinical laboratory will be utilized to support critical care skills and the practice of Advanced Cardiac Life Support (ACLS) techniques. Prerequisite: RTH 218. Corequisite: RTH 230.

5

RTH 230 3 2 0 4

Perinatal and Pediatric Respiratory Care Normal growth, development, and anatomy and physiology of the newborn through pediatric age groups will be discussed. Essential pathologic processes and related treatment regimes will be covered. Neonatal and pediatric mechanical ventilators, management of the patient-ventilator system and other related neonatal/pediatric critical care topics will be covered in this course. Prerequisites: BIO 169, RTH 215, and RTH 220. Corequisite: RTH 228.

RTH 238 0 2 12 5

Clinical Experience VI

The student will begin clinical practice in specialty rotations through the neonatal/pediatric intensive care and general pediatric areas. A continuation of adult critical care rotations will also be conducted. The preclinical laboratory will be utilized to allow student practice of related skills, review and remediation opportunities, and clinical case and equipment presentations. Prerequisite: RTH 228. Corequisite: RTH 230.

RTH 241 1 0 0 1
Respiratory Care Department Operations
This course provides an overview of the

This course provides an overview of the administrative organization and operation of a modern respiratory care department. Personnel, interviewing, recruitment, staffing shortages, policy and procedure manuals, ongoing education, evaluations, scheduling, prospective payment, scope of practice, budgeting and Total Quality Management (TQM) will be addressed in this course. Prerequisite: RTH 228.

RTH 248 0 2 27 10

Clinical Experience VII

The student will gain further clinical experience through various rotations in the hospital, department of Pulmonary medicine, and home care settings. Students will be given optional rotation opportunities in the

areas of teaching, departmental operations, cardiopulmonary rehabilitation, neonatal intensive care and other specialty rotations. Emphasis will be placed on refinement of adult critical care skills. The pre-clinical laboratory will be utilized to allow student practice of related skills, comprehensive review and remediation opportunities, and clinical case presentations. Prerequisites: RTH 275, RTH 241, and RTH 238.

RTH 255 1 0 0 1 Seminar

This course will focus on advances in technology and cross-training within the respiratory care profession. Students will perform current research and present projects in class. Prerequisite: RTH 228 and ENG 100.

RTH 260 2 0 0 2 Trauma Care

This course will present major topics of trauma care and will focus on the role of the respiratory therapist in trauma management. Prerequisite: RTH 238.

RTH 268 1 2 0 2 Cardiopulmonary Diagnostic Testing

This course is designed to provide the respiratory care student with a comprehensive knowledge of diagnostic studies of the respiratory and cardiovascular system. Technical theory, manual calculation, equipment and interpretations of each diagnostic test will be presented. Prerequisites: RTH 170 and RTH 180.

RTH 275 2 0 0 2 Pulmonary Rehabilitation and Home Care

This course is designed to provide an overview of techniques utilized in patient evaluation for the pulmonary rehab patient. Emphasis is also placed on the home care of the pulmonary patient. Topics presented include: mechanical ventilation in the home, rehab and home care equipment, medication and diet, reconditioning exercises, patient and family education, patient discharge planning, home care versus durable medical equipment (DME) company, reimbursement guidelines and issues in gerontology. Prerequisite: RTH 228.

RTT 130 0 2 12 5

Radiographic Imaging I
Through clinical experience and laboratory
exercises, this course concentrates on the
operation of routine radiographic equipment;
part positioning of the chest, abdomen and
body extremities; and patient care techniques.

Selection of radiographic exposure factors and the use of equipment accessories are also stressed. Prerequisite: RDT 114.

RTT 131 4 0 0 4 Radiation Therapy Positioning and Anatomy

Anatomy and routine projections of the vertebral column and cranium are discussed. Radiation therapy simulation is introduced with terminology, equipment, and accessories. Prerequisite: BIO 108 and RDT 139.

RTT 132 0 2 12 5 Radiographic Imaging II

Clinical and laboratory experiences move to the radiation therapy department with emphasis on simulation, procedure, equipment, terminology, and accessories. Prerequisite: RTT 130.

RTT 205 3 0 0 3 Radiation Therapy Physics I

Fundamental principles, concepts and terminology concerning the atom and the structure of matter are explored. The properties and basis for production of ionizing radiation are presented as applicable to radiation therapy. Prerequisites: BIO 108 and RTT 131.

RTT 206 3 0 0 3 Radiation Therapy Physics II

The means for production of gamma and x-radiation are studied. Measures of radiation quantity and treatment units are applied through laboratory sessions. Topics for discussion and laboratory sessions will include photon interactions and radioactivity. Prerequisite: RTT 205.

RTT 207 3 0 0 3 Dosimetry I

Classroom and laboratory sessions present the basic concepts of clinical dosimetry and treatment planning. Delivery methods to include single and multiple beam techniques are discussed. Tumor localization and dose calculations are performed. Prerequisites: MAT 101 and RTT 227.

RTT 208 3 0 0 3 Dosimetry II

Consideration of more complex dosimetry and treatment planning directs students' experiences from manual to computer-performed calculations. The means for construction and application of treatment accessories are outlined. Prerequisite: RTT 207.

RTT 214

2 12

Orientation to Radiation Therapy

This course introduces the students to the operation of the radiation therapy department. the role of the radiation therapy technologist, selected equipment, and patient care particular to the clinical setting. procedures are observed through clinical and laboratory experience. Prerequisite: RTT 132.

RTT 215 Radiobiology 3 3

Course studies center on the biological effects of ionizing radiation, tissue sensitivity, and tissue response to irradiation. Methods of radiation protection applicable to tumor localization and treatment delivery are emphasized. Prerequisite: RTT 205. Corequisite: RTT 206.

RTT 221

3 3

Clinical Oncology I

The first of a two-course series, this course promotes the study of malignant disease within anatomical systems. Staging and grading, etiology, spread and involvement of selected tumor types are outlined for discussion and possible implications in treatment delivery. Prerequisites: BIO 108 and RTT 131.

RTT 222

0 0 3

Clinical Oncology II

The study of malignant disease is continued from Clinical Oncology I to include disease processes of the various body systems. Methods of treatment significant to tumor type and location are discussed. Patient prognosis is examined to better understand the goals of radiation therapy. Prerequisite: RTT 221.

RTT 227

2 15 6 **Radiation Therapy Practicum I**

One of three practicum courses, this course provides clinical experience in the use of equipment and patient positioning in both simulation and the delivery of radiation therapy treatments. The student is introduced to the varied aspects of the radiation therapy department and patient progression through evaluation, treatment and follow-up. Prerequisite: RTT 214.

RTT 236

Radiation Therapy Procedures I

Treatment modalities are examined as to their application in treatment delivery. The overall treatment plan is evaluated as to equipment selection, beam modification,

patient support, use of immobilization and possible contouring methods. Prerequisite: RTT 227.

RTT 237 Radiation Therapy Practicum II

2 21 8

Technical skills are developed and refined within the departmental setting. Recognition of the provision for special patient needs is stressed. Routine exams are performed under supervision. Prerequisite: RTT 227.

RTT 246 Radiation Therapy Procedures II

Routine as well as new techniques in treatment delivery are explored. Discussion promotes choices the technologist will make relating to tumor site and modality selection. Trends in therapeutic techniques are presented through investigation of current literature or independent study. Prerequisite: RTT 236.

RTT 247 Radiation Therapy Practicum III

2 21

This course promotes clinical practice for the student on a more independent level of performance. The student utilizes equipment, accessories, patient care techniques and treatment considerations in the completion of radiation therapy procedures. Prerequisite: RTT 237.

SCI 101 General Science 3

This is a study of the basic concepts from biological, physical, and natural sciences. Prerequisite: None.

SCI 1001

0

Practical Physical Science

This course covers some of the basic concepts in physical science. Topics included are physical measurement, structure and properties of matter, energy-forms, production measurement and uses, gravity and friction. Emphasis on specific topics will be determined by the trade or vocational interests of the students involved. Prerequisite: None.

SOC 102 General Sociology 5 0

This is an introductory course in the principles of sociology. An attempt is made to provide an understanding of culture, collective behavior, community life, social institutions, and social change. It presents the scientific study of man's behavior in relation to other men, the general laws affecting the organization of such relationships, and effects

of social life on human personality and behavior. Prerequisite: Meet the required reading score on placement test to enter curriculum or permission of the department chairperson.

SOC 103 3 0 0 3 Sociology

The student will examine the social environment in which personality develops and matures and will analyze the major social institutions as well as the major social processes involved. Attention is given to the scope, methods, and concepts of sociology. Prerequisite: Meet the required reading score on placement test to enter curriculum or permission of the department chairperson.

SOC 105 3 0 0 3 Families in the American Culture

This course is the study of the family in the American culture, changing patterns in family roles, the influence of socioeconomic status on family relationships, factors associated with cultural deprivation, and the effects on children in such families. Prerequisite: SOC 102 or 103.

SOC 211 3 0 0 3 Victimology

This course introduces the student to the study of crime victims. Emphasis will be placed on the role of the victim, characteristics of crime victims, conflicts between victims and the judicial system and the available assistance to victims. Prerequisite: None.

SON 100 2 0 0 2 Orientation to Sonography

This is an introductory course in which the student learns the applications of sonography in the medical field. The basics of sound waves are introduced along with terminology specific to sonography. Prerequisite: None.

SON 111 3 0 0 3 Medical Sonography Physics I

This course is designed to provide the student of diagnostic medical sonography a knowledge of the physics of ultrasound. Topics for study include the physical properties of ultrasonic waves, their interactions with matter, their propagation and detection. Prerequisite: None.

SON 121 3 0 0 3 Medical Sonography Physics II

The study of acoustical physics is continued. Emphasis is placed on mathematical computations involving the reactions of sound with matter. The various kinds of instruments used in sonography are examined

as to physical principles and medical application. Prerequisite: SON 111.

SON 132 3 0 0 3

Sectional Anatomy

The appearance of body tissue and organ systems is approached through cross-sectional anatomy. Imaging modalities to include computerized tomography and magnetic resonance imaging are compared to images produced in cross-sectional sonograms. A primary goal is to promote the student's ability to view the body in transverse perspectives. Prerequisite: BIO 108.

SON 133 4 0 0 4 Sonographic Anatomy I

This is the first of two anatomy courses that deal specifically with relational anatomy as seen in infinite scanning planes. This course is coordinated with Scanning Techniques. The focus in this course is abdominal anatomy. Prerequisite: RDT 112.

SON 134 4 0 0 4 Sonographic Anatomy II

The second of two courses dealing in specific relational anatomy. The focus of this course is male and female pelvic anatomy, small parts and pathology. Prerequisite: SON 133.

SON 153 4 4 0 6

Scanning Techniques

Scanning Techniques deals with the actual art of scanning. This course is coordinated with Sonographic Anatomy I class. Basic scanning techniques, darkroom fundamentals, bioeffects, and quality assurance are discussed. Prerequisite: Enrollment in Medical Sonography Curriculum.

SON 240 4 0 0 4 Embryology and Fetal Development

This class is a basic embryology course dealing with the embryo from conception through twelve weeks' gestation. Fetal development is the study of fetal growth patterns from twelve weeks' gestation to birth. Fetal measurements are studied in detail at this time. Prerequisite: SON 134.

SON 250 4 0 0 4

Sonographic Pathology I

Pathological processes occurring in the abdomen are studied in this course. The focus is the soft tissue organs which are seen sonographically. This course is introduced after the student has a good understanding of the normal sonogram as learned in

Sonographic Anatomy I and Scanning Techniques. Prerequisite: SON 133.

SON 251 4 0 0 4 Sonographic Pathology II

This course focuses on gynecological pathology. The student is also introduced to fetal anomalies which are coordinated with their Embryology and Fetal Development course. Prerequisites: SON 250 and Corequisite: SON 240.

SON 256 2 2 15 8 Practicum I

This is the first of a series of five courses in which the student begins to apply knowledge learned in the classroom to the clinical situation. The student is assigned to a clinical site away from the campus. This first course introduces the student to the working of the clinical site, darkroom technology, patient scheduling and patient care. Prerequisite: RDT 112.

SON 259 3 0 0 3 Introduction to Case Studies

This is an introductory course in which the student studies medical statistics and the methods for case presentations. Each student will present case studies from their clinical site. The student will also present an educational exhibit based on the North Carolina Ultrasound Society's Education Exhibit Guidelines. Prerequisite: SON 266.

SON 260 2 0 0 2 Case Studies I

This is the first of two courses in which the student begins presenting interesting cases scanned in clinic. Each student researches the case through patient history and laboratory tests. The student then follows the case during the patient's treatment; this is done with radiologic, pathologic and surgical results. Prerequisite: SON 154.

SON 261 2 0 0 2 Case Studies II

The second of a series of two courses which deal with the presentation of interesting sonographic cases. Each case is again researched and presented by the student with critical analysis by the other students in the group. Prerequisite: SON 260.

SON 266 0 0 24 8 Practicum II

The second of five courses which give the student practical experience at a clinical site. The student is assigned to a clinical site away from the campus. Students begin completing

competencies in abdominal scanning at this time. Prerequisite: SON 256.

SON 270 5 0 0 5 Sonographic Seminars

This course is designed to help the sonography student begin to put together materials in preparation for the sonography boards. The student reviews medical literature and investigates methods for continuing education after graduation. Mock registries are taken during this course. Prerequisite: SON 286.

SON 271 3 0 0 3 Introduction to Vascular and Cardiac Sonography

This course introduces the student to applications of sonography other than those studied earlier in the curriculum. The focus is neurosonology, vascular and cardiac imaging with sound waves. Prerequisite: SON 286.

SON 276 0 0 24 8 Practicum III

The third of five practicum courses which deal with clinical experience for the student. The student is assigned to a clinical site away from the campus. Competencies in abdominal and gynecological scanning along with small parts are required of the student in this course. Prerequisite: SON 266.

SON 286 0 0 24 8 Practicum IV

This is the fourth in a series of five practicum courses in which the student gains clinical experience. Students are assigned to a clinical site away from campus. Competencies in abdominal, gynecological, small parts and obstetrics are required in this course. Prerequisite: SON 276.

SON 296 0 0 24 8 Practicum V

This is the final course in a five-course series in which the student gains practical experience at a clinical site. The student is assigned to a clinic away from campus. Competencies in abdominal, gynecological, small parts and obstetrics are required in this course. Special rotations through cardiology, pediatric and neurosonology are done at this time. Prerequisite: SON 286.

WLD 1101 1 0 3 2 Basic Gas and Arc Welding

The course includes welding demonstrations given by the instructor and practice by the students. The safe and proper methods in the

setup and operation of welding equipment are demonstrated. Practice is given in joining metals by torch welding, brazing, silver soldering, soft soldering, and shielded metal arc mechanical repair work. Prerequisite: None.

WLD 1111 3 1 **Air Conditioning Welding**

This course includes welding demonstrations by the instructor and practice by the students. The safe and proper methods in the setup and operation of welding equipment are demonstrated. Practice is given in brazing. braze welding, and hard and soft soldering of ferrous and nonferrous metals. Flame cutting methods are practiced as applicable to mechanical repair work that the air conditioning technician will encounter in the field of work. Prerequisite: None.

WLD 1113 **Mechanical Testing and Inspection**

This course covers the standard methods for mechanical testing of welds. Types of tests covered are bend, destructive, free bend, guided-bend, nick-tear, notched-bend, teebend, nondestructive, V-notch, and Charpy impact. Prerequisite: None.

WLD 1120 Oxyacetylene Welding and Cutting

This course provides an introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Welding procedures such as practice of puddling and carrying the puddle running flat beads, butt welding in the flat, vertical, and overhead positions, brazing, and hard and soft soldering are covered. procedures are stressed throughout the program of instruction in the use of tools and equipment. The performance of mechanical testing and inspection to determine quality of the welds is made. Prerequisite: None.

WLD 1121 15 0 **Basic Arc Welding**

Arc welding power source capabilities, scope of functions, components, and their care and maintenance will be covered in the course. The significance of "F" numbered electrodes and their application in the welding process Development of will be included. manipulative skills needed to make correct welds in the flat position will be an objective of the course. Safe and correct arc welding practices will be demonstrated and will be required of the students. Prerequisite: None.

WLD 1121A Basic Arc Welding (Part I)

This course is the first part of a two-part course that covers arc welding power source capabilities, scope of functions, components, and their care and maintenance. significance of "F" numbered electrodes and their application in the welding process will be included. Development of manipulative skills needed to make correct welds in the flat position will be an objective of the course. Safe and correct arc welding practices will be demonstrated and will be required of the students. Prerequisite: None.

WLD 1121B 5 Basic Arc Welding (Part II)

This course is a continuation of WLD 1121A. Prerequisite: WLD 1121A.

WLD 1123 3 **Inert Gas Welding**

This course provides an introduction and practical operations in the use of inert gasshielded arc welding. A study of the equipment, operation, safety, and practice in the various positions is made. A study of such topics as principles of operation, shielding gases, filler rods, process variations and applications, and manual and automatic welding are also made. Prerequisite: None.

WLD 1124 0 12

Advanced Arc Welding

This course includes extensive practice in welding in all positions. The micro-wire welding process and a study of such topics as principles of operation, nomenclature of machine, filler metals, and shielding gases are included. Prerequisite: WLD 1121.

WLD 1124A 5 Advanced Arc Welding (Part I)

This course is the first part of a two-part course that includes extensive practice in welding in all positions. The micro-wire welding process and a study of such topics as principles of operation, nomenclature of machine, filler metals, and shielding gases are included. Prerequisite: WLD 1121A and WLD 1121B.

WLD 1124B 0 Advanced Arc Welding (Part II)

This course is a continuation of WLD 1124 A. Prerequisite: WLD 1124A.

WLD 1126 6 Advanced Inert Gas Welding

This course is a continuation of WLD 1123, Inert Gas Welding, with more theory and practice in inert gas welding. Both ferrous and nonferrous welding applications are covered. Inert spot welding, CO2 welding, gas-metal arc, and automatic welding are taught. Special consideration is given to shielding gases. Prerequisite: WLD 1123.

WLD 1128 1 0 6 3 Welding Procedures and Practices

This course provides an introduction to practical applications for certification procedures according to A.W.S. D1.1 as well as welding and preparing test coupons. Prerequisites: WLD 1120, WLD 1121, WLD 1124, and WLD 1126.

WLD 1129 2 0 9 5 Basic Gas Metal Arc Welding (MIG)

This course will provide instruction in the basic use of the constant potential gas metal arc welding equipment (MIG). Prerequisite: None.

WLD 1130 4 **Applied Basic GMAW and Gas Welding** This course includes welding demonstrations given by the instructor and practice by the students. The safe and correct methods of assembling and operating welding equipment are emphasized. Practice is given in joining and surfacing of ferrous metal by brazing, braze welding, and fusion welding. The study and practice of the operations of GMAW process will be included with reference to the effects of expansion and contraction to minimize warpage of auto body components. Oxyacetylene flame cutting is practiced as applicable to auto body and chassis repair work. Prerequisite: None.

WLD 1140 3 0 3 4 Welding Power Sources

This course provides instruction on the correct procedures for solving maintenance problems on different types of welding electromechanical equipment found in industry. Emphasis is placed on electrical troubleshooting techniques. Prerequisite: WLD 1121 or equivalent experience.

WLD 1141 2 0 6 4 Advanced Wire Welding

This course includes extensive practice in the welding of different metals in all positions. The gas metal arc welding process is used. A study of the principles of operation, the nomenclature of machines, types of filler wires, and shielding gases are covered. Prerequisite: WLD 1126 or equivalent experience.

WLD 1142

3 0 3 4

Nondestructive Testing I

This course is designed to develop the skills and knowledge in the area of nondestructive testing. The primary focus of the course will be on the principles and procedures of visual, eddy current and radiographic testing at ASNT Level I standards. Prerequisite: WLD 1113 or equivalent experience.

WLD 1143 3 0 3 4 Nondestructive Testing II

This course is a continuation of Nondestructive Testing I. The focus of the course will be on laboratory skills, selected aspects of liquid penetrant, magnetic particles and ultrasonic testing at ASNT Level I standards. Prerequisite: WLD 1142.

WLD 1144 2 0 3 3 Welding Fabrication I

This is a basic course in metal fabrication. The course will provide instruction on the identification and use of basic hand tools and measuring instruments. Safety rules, regulations and procedures will be covered. Basic procedures and processes on the use of the shear, iron worker, press brake, box and pan brake and vertical and horizontal band saws will be introduced. Prerequisite: WLD 1124, WLD 1126, or equivalent.

WLD 1145 2 0 3 3 Welding Fabrication II

This course provides advanced work using the shear, iron worker, press brake and band saws. Class projects will be used to develop procedures in planning, machine operations, final welding assembly, and inspection. Prerequisite: WLD 1144.

WLD 1146 1 0 6 3 Robotic Programming for Welding

This course provides instruction on the application and programming of a five-axis robot used in the welding industry. Opportunities are provided to develop observation skills, effective techniques, and beginning skills in adapting robotic technology to the needs of industry. Prerequisite: WLD 1141 or equivalent experience.

WLD 1148 1 0 6 3

SMAW Pipe Welding

This course is designed to provide practice in the welding of pipe using the shielded metal arc process in the horizontal, vertical, and horizontal-fixed positions according to the ASME Code, Section 9. Prerequisite: WLD 1124 or equivalent experience.

WLD 1149 2 0 6 4 Tubing & Pipe Inert Gas Welding

This course is designed to provide practice in the inert gas welding processes of pipe and tubing in the horizontal, vertical, and horizontal-fixed positions according to the ASME Code, Section 9. Prerequisite: WLD 1126, WLD 1148, or equivalent experience.



Staff rectory Jacul



FACULTY/STAFF DIRECTORY

Gordon B. Hughes

Dr. Bob H. Greene

Term Expires

1993

1994

1995

1996

Robert R. Gordon, Jr.

T. Glen Fleeman, Jr.

Dr. Susan R. Allred

Anne R. Hennis

Anne R. Hennis

Dr. E. Ann Tyndall

tive Services

Development

ECONOMIC DEVELOPMENT

Assistant to the President

Director, Small Business Center

Department Chairperson, Physics

Executive Vice President, Instructional

Executive Vice President, Administra-

Assistant to the President for Economic

BOARD OF TRUSTEES

APPOINTED BY THE GOVERNOR

Senior Account Executive, Legg Ma-

Registered Nurse, Medical Park Hos-

Chairman

Secretary

Vice Chairman

C. David Kepple, Jr.

Charles C. Stott, Jr.

Jovce E. Glass

Dr. Bob H. Greene

President

son Wood Walker Dewitt E. Rhoades

CEO, DERA, Inc.

President, Bioplans

pıtal	INSTRUCTIONAL SERVICES
	T. Glen Fleeman, Jr.
APPOINTED BY COUNTY	Executive Vice President
COMMISSIONERS	
Frances D. Kirkman 1993	Curriculum Programs
Nursing Supervisor, Triad Methodist	Marvin L. Allen
Home	Associate Vice President and Dean,
Gordon B. Hughes 1994	Business Technologies
AT&T (Retired)	Albert F. Mutton
Robert F. Joyce 1995	Associate Dean, Business Technolo-
Administrative Assistant, Sheriff of	gies
Forsyth County	Donald C. Shoaf
Brenda Q. Hutchins 1996	Assistant Vice President and Dean,
Designer/Manufacturer, Lady B. Goode	Health Technologies
	Carolyn M. Holland
APPOINTED BY WINSTON- SALEM	Acting Associate Dean, Health Tech-
FORSYTH COUNTY BOARD OF	nologies, Acting Department Chairper-
EDUCATION	son, Radiologic Technology
Dr. Charlie B. Hauser 1993	Carolyn T. Rajacich
Winston-Salem State University (Re-	Assistant Dean, Health Technologies/
tired), North Carolina Legislator	Department Chairperson, Practical
Robert R. Gordon, Jr. 1994	Nursing
Sr. Vice President of Personnel, RJR	Phyllis D. Sample
Tobacco Company	Assistant Dean, Health Technologies/
Dr. C. Douglas Maynard 1995	Coordinator, Associate Degree Nurs-
M.D./Chairman, Department of Radi-	ing
ology, Bowman Gray School of Medi-	George H. Kahl, Jr.
cine	Dean, Engineering Technologies
Dr. Kenneth M. Sadler 1996	Dr. Adeline E. Fain
D.D.S./Administrator, Dental Care	Dean, Arts and Sciences
Plan, Inc.	Laura W. Geyer
A DROINTED DV CONTROL	Associate Dean, Arts and Sciences,
APPOINTED BY STUDENT	Department Chairperson, Pretechnical
GOVERNMENT ASSOCIATION	Linda M. Lee
Current SGA President Elected Annually	Associate Dean, Arts and Sciences/
(Nonvoting Member)	Department Chairperson, Humanities
EXECUTIVE OFFICE	Alvin S. Metts
Dr. Bob H. Greene	Associate Dean, Math and Sciences/

Continuing Education

L. T. Williams

Assistant Vice President and Dean

J. Gregory Brown

Associate Dean, Community Service Programs

Dr. Lori D. Bryan

Associate Dean, Occupational Extension I

Jerri E. Cathey

Associate Dean, Literacy Program

R. Shelton Jones

Associate Dean, Occupational Extension II

Frances W. Proctor

Associate Dean, Occupational Extension/ Health Related

Cheryl D. Byerly

Coordinator, Adult High School and GED

Marilyn W. Rich

Coordinator, Compensatory Education

Paula J. McCoy

Coordinator, Adult Basic Education

Chris F. Hooper

Coordinator, Fire Service Training

Judith R. Ingle

Coordinator, Assessment/Retention

James B. Weiss

Coordinator, Literacy Recruitment

Deborah J. Gaddy

Workplace Literacy Specialist

ADMINISTRATIVE SERVICES

Dr. Susan R. Allred

Executive Vice President

Information Systems

William H. Marotz

Dean

Beverly A. McComb

Director, Administrative Computer Center

Randall A. Robertson

Operator/Programmer

Ricky L. Newsome

Software Technician/ Programmer

Auxiliary and Physical Plant Services

Jerry D. Rogers

Director

Lillie B. Clark

Supervisor, Custodial and Housekeeping

Vacant

Supervisor/Faculty Staff Service Cen-

ter

Scot R. Quesenberry

Supervisor, Maintenance

Jean P. Young

Manager, Bookstore

Jo Ann S. Galvean

Coordinator, Operations

Business Office

Kenneth W. Jarvis

Comptroller

William M. Bigham

Director of Purchasing/Equipment

Lester G. Brown

Director, Public Safety

Vacant

Director, Financial Services

Rebecca M. VanderKlok

Director, Student Financial Services

Jan P. Neas

Supervisor of Cashier in Accounts Receivable and Special Funds

Rebecca A. Keith

Budget Officer

Dillon, Sammy D.

Acting Supervisor of Public Safety Officers

Johnson, Thomas P.

Officer, Public Safety

Luffman, Vicky F.

Officer, Public Safety

Wagoner, Robbie L.

Officer, Public Safety

Marketing and Publications

Jean R. Perkins

Coordinator

Brenda B. Bodsford

Graphic Designer

Patricia K. McClive

Printing Specialist

PLANNING AND DEVELOPMENT

James A. Rousseau

Vice President

Library Services

John R. Candelaria

Director

John D. Briggs

Audiovisual Librarian

Thomas F. Gordon, Jr.

Reader Services Librarian

Carol P. Freeman

Allied Health Librarian

Theodore P. Labosky

Periodicals Librarian

Jennifer Y. Springs

Library Technical Assistant

Employment Assistance Center

Barbara J. Barringer

Director

Student Activities

R. Kenneth Bradstock

Facilitator

Student Services

Dr. Susan Q. Phelps

Dean

Benjamin L. Howell

Director, Counseling Services/Career Guidance Center

George McLendon

Director, Admissions

Dr. J. Bruce Shepherd

Director, Records and Recruitment

Gloria L. Sexton

Coordinator, Single Parents/WINS Program

Sandra W. Suggs

Admissions Counselor

Rondolyn D. Hickman

Admissions Counselor

E. Lorraine Wood

Admissions Counselor

Sam L. Beck

Counselor

Dr. Charles R. King

Counselor

Colleen R. Richardson

Counselor

Paula J. Compton

Special Services/Testing/ADA Coordinator

Brenda A. Green

Coordinator of Records

Institutional Research

Dr. Sarah E. Hutslar

Dean

Participant Service Center

Veronica M. Ford

Coordinator

PERSONNEL AND EVENING PROGRAMS

Larry V. Weaver

Administrative Assistant

FACULTY AND STAFF

Allen, Marvin L.

Associate Vice President and Dean, Business Technologies

B.A., Davidson College; M.B.A., East Carolina University; Nova University

graduate program

Allred, Sammy L.

Accounting

B.S., M.A., Appalachian State University

Allred, Susan R.

Executive Vice President, Administrative Services

B.A., Coker College; M.Ed., College of William and Mary; Ed.S., George Washington University; Ed.D., University of North Carolina at Greensboro Atkins, Harold L.

Department Chairperson, Horticulture Technology

B.S., M.S., North Carolina State University

Ayers, Michael V.

Life Sciences

A.A., A.S., Surry Community College; B.S., M.A., Appalachian State University

Bailey, Sharon L.

Acting Department Chairperson, Radiation Therapy

B.S. Greensboro College; A.A.S., East Tennessee State University; A.R.R.T., Vanderbilt University

Barringer, Barbara J.

Director, Employment Assistance B.A., Catawba College; M.A., University of Delaware

Beck, Sam L.

Counselor

B.A., M.A., Wake Forest University; further graduate study, Wake Forest University and University of North Carolina at Greensboro; NCC

Bigham, William M.

Director of Purchasing/Equipment A.B.T., High Point College; graduate study, North Carolina State University

Blackhall, Wendy A.

Associate Degree Nursing B.S.N., University of Windsor

Boger, Dale E.

Mathematics

B.S., North Carolina State University; M.Ed., University of Maryland

Boren, Jerre D.

Associate Degree Nursing

R.N., Duke University School of Nursing; B.S., Richmond Professional Institute; M.A., University of North Carolina at Chapel Hill; further graduate study, University of North Carolina at Greensboro

Briggs, John D.

Audiovisual Librarian

B.S., M.A., Appalachian State University

Brown, E. Ike

Department Chairperson, Plumbing Licensed Plumbing Contractor

Brown, J. Gregory

Associate Dean, Community Service Programs

A.A.S. Surry Community College; B.S., M.A., Appalachian State University

Brown, Lester G.
Director, Public Safety

Sworn Deputy Sheriff

Brvan, Lori D.

Associate Dean, Occupational Extension I

Ed.D. University of North Carolina at Greensboro; B.S., Campbell University; M.Ed., North Carolina State University

Bullins, Adelia T.

Medical Sonography

C.N.M.T., A.R.R.T.(N), R.D.M.S., A.A.S., Forsyth Technical Community College; B.S., North Carolina State University;

Burns, Herbert I.

Department Chairperson, Architectural Technology

A.A., Lees Junior College; B.A., University of Kentucky: Registered Architect, State of North Carolina

Byerly, Cheryl D.

Coordinator, Adult High School and **GED**

B.A., University of North Carolina at Greensboro; M.A., Appalachian State University

Byers, Samuel A.

Physics

B.S., M.S., North Carolina A &T State University

Canavan, Amanda

Humanities

B.A., Creighton University; M.A., Wake Forest University

Candelaria, John R.

Director, Library Services B.A., Davis and Elkins College; M.L.S.,

Indiana University

Cathey, Jerri E.

Associate Dean, Literacy Program A.B., University of North Carolina at Chapel Hill; M.Ed. University of North Carolina at Greensboro

Chandler, Joseph W., III

Accounting

B.S., University of South Carolina; CPA, State of North Carolina; continuing study, American Institute of CPA's and **NCACPA**

Chinlund, Alicia L.

Social Sciences

B.A., M.A., Wake Forest University; further study, University of North Carolina at Chapel Hill

Clanton, Rachel T.

Radiologic Technology

A.R.R.T.(R), Diploma in Radiologic Technology, North Carolina Baptist Hospital/Bowman Gray School of Medicine; A.A.S., Forsyth Technical College; B.S., Gardner-Webb College; further study, Winston-Salem State University

Clark, Kathy C.

Vascular/Cardiovascular Interventional A.R.R.T.(R) (C.I.T.), A.A., Peace College; B.S., University of North Carolina at Chapel Hill

Clary, Robert A.

Microcomputer Systems Technology B.S.B.A., M.A., Appalachian State Uni-

Cline, Jane L.

Business Administration B.S., M.B.A., University of North Carolina at Greensboro

Clodfelter, C. W.

Department Chairperson, Automotive Body Repair

Vocational Diploma, Forsyth Technical Community College

Compton, Paula J.

Special Services/Testing/ADA Coordinator

B.A., Atlantic Christian College

Conner, Anne B.

Department Chairperson, Medical Sonography

A.R.R.T.(R), R.D.M.S., A.A.S., Virginia Western Community College

Cranfill, Robin

Mathematics

B.S., University of North Carolina at Greensboro; M.Ed., North Carolina State University

Dalton, Patricia G.

Department Chairperson, Administra-

tive Office Technology

B.S., M.Ed., University of North Carolina at Greensboro; further graduate study, North Carolina State University, Appalachian State University, Wake Forest University

Darden, Jean L.

Practical Nursing

R.N., Watts Hospital School of Nursing; B.S.N., Winston-Salem State University

Davis, Pauline R.

Practical Nursing

R.N., Bon Secours School of Nursing; B.S.N., University of Pennsylvania

Davis, Regina R.

Financial Aid Assistant

A.A.S., Forsyth Technical Community College; B.S., Gardner-Webb University

Day, Garry H.

Department Chairperson, Graphic Arts - Printing

B.S., Appalachian State University

Dery, Ronald A.

Department Chairperson, Manufacturing Engineering Technology *B.S.M.E.*, *Michigan State University*;

Registered Professional Engineer

DeVane, Gloria H.

Pretechnical

B.S., North Carolina Central University

Dickerson, Teresa C.

Humanities

B.S., East Carolina University; M.A., University of North Carolina at Charlotte

Dillard, Betty G.

Humanities

B.A., Winston-Salem State University; M.A., Wake Forest University

Dosier, Ernestine W.

Associate Degree Nursing

R.N., B.S.N., Winston-Salem State University; graduate courses at Wake Forest University; M.Ed., A & T State University

Durham, Deborah L.

Radiologic Technology

A.R.R.T.(R), B.S., University of North Carolina at Chapel Hill

Eddy, Roger A.

Acting Department Chairperson, Computer Engineering Technology

B.S.E.E., M.Ed., Ohio State University; Ohio Registered Professional Engineer

Fain, Adeline E.

Dean, Arts and Sciences

A.B., Washington University; M.A.Ed., University of North Carolina at Greensboro; Ph.D., University of North Carolina at Chapel Hill

Fleeman, T. Glen, Jr.

Executive Vice President, Instructional Services

B.S., Concord College; M.Ed., University of North Carolina at Greensboro

Foltz, Daniel O.

Department Chairperson, Electronic Servicing

Vocational Diploma in Communications, Vocational Diploma in Home Entertainment Electronics Systems, Specialist Certificate in Fundamentals of Electronics, Specialist Certificate in Basic Electronic Circuit Applications, DeVry Technical Institute

Ford, Veronica M.

Coordinator, Participant Service Center

B.A., North Carolina Central University; M.S., North Carolina A & T State University

Forrest, William C.

Humanities

B.A., University of North Carolina at Charlotte; M.A., Appalachian State University

Freeman, Carol P.

Allied Health Librarian

B.S., Longwood College; M.L.S., University of North Carolina at Greensboro

Fulmer, Kathleen

Associate Degree Nursing

B.S.N., University of Maryland School of Nursing

Furbish, Deborah W.

Life Sciences

B.S., North Carolina State University; M.S., University of Kentucky

Gaddy, Deborah J.

Workplace Literacy Specialist

B.A., M.A., Western Carolina University

Geyer, Laura W.

Associate Dean, Arts and Sciences/Department Chairperson, Pretechnical B.S., Towson State University; M.Ed., University of North Carolina at Greensboro

Goforth, D. Shelton

Department Chairperson, Life Sciences B.S., M.A., Appalachian State University

Gordon, Merrill J.

Associate Coordinator, Academic Computer Services/Instructor, Business Computer Programming

A.A.S., Forsyth Technical Community College; B.A.S., Guilford College

Gordon, Thomas F., Jr.

Reader Services Librarian

A.B., Duke University; M.S.L.S., University of North Carolina at Chapel Hill

Grady, Stanley D.

Department Chairperson, Business Computer Programming

B.S., North Carolina A & T State University; M.S., University of North Carolina at Greensboro

Grant, E. Carter

Electronics Engineering Technology B.S.G.E., B.S.E.E., M.S.E.E., North Carolina State University; M.S.S.E., University of Michigan; North Carolina Registered Professional Engineer; South Carolina Registered Professional Engineer

Gray, Retta W.

Humanities

B.A.E., University of Florida; M.A., Appalachian State University; further graduate study, University of Florida, Florida State University, Western Carolina University, Jacksonville University, Davidson College, and Wake Forest University

Green, Brenda A.

Coordinator of Records

B.A., Winston-Salem State University

Greene, Bob H.

President

B.S., M.A., Appalachian State University; Ed.D., Nova University

Groce, Kelly L.

Individualized Learning Center A.A.S., Surry Community College; B.A., M.A., Appalachian State University

Grose, Odell H., Jr.

Department Chairperson, Residential Carpentry

Vocational Diploma, Forsyth Technical Institute; Licensed General Contractor

Hage, E. Elaine

Humanities

B.A., Washington Bible College; M.Ed., Lynchburg College

Hagman, Sandra S.

Microcomputer Systems Technology B.A., M.A., Virginia Polytechnic Institute and State University; Secondary Certification in English, University of Delaware; additional graduate study, University of Texas as San Antonio

Haith, Sylvia A.

Social Sciences

B.A., North Carolina Central University; M.A., Appalachian State University; further graduate study, North Carolina Central University, University of North Carolina at Chapel Hill, University of South Carolina

Hanes, Kenneth D.

Department Chairperson, Electrical Installation

Electrician Apprenticeship Program, Forsyth Technical Institute; Licensed Electrical Contractor

Hardy, Juliet A.

Associate Degree Nursing

B.A., B.S.N., State University of New York

Harkness, Donald G.

Department Chairperson, Nuclear Medicine Technology

A.A.S., Forsyth Technical College; B.S.N.M.T., Medical College of Georgia; M.Ed., University of North Carolina at Greensboro

Hendrick, Lisa Marie

Life Sciences

B.S., M.A.T., University of North Carolina at Chapel Hill

Hennis, Anne R.

Assistant to the President for Economic Development

B.S., Appalachian State University; M.B.A., University of North Carolina at Greensboro

Hickman, Rondolyn D.

Admissions Counselor

B.A., Winston-Salem State University

Hinkle, Deborah A.

Microcomputer Systems Technology B.A., Grove City College; M.A., Appalachian State University; CPS

Hinson, Tommy R.

Department Chairperson, Mathematics A.A., Wingate Junior College; B.S., Appalachian State University; M.Ed., University of North Carolina; further graduate study, Wake Forest University

Holland, Carolyn M.

Acting Associate Dean/Department Chairperson, Radiologic Technology A.A.S., Caldwell Community College; B.A., Western Illinois University

Hooper, Chris F.

Coordinator, Fire Service Training A.A.S., Rowan Technical Community College

Howell, Benjamin L.

Director, Counseling Services/Career Guidance Center

B.A., Wake Forest University; M.A., Appalachian State University; NCC

Howell, Kevin Ray

Microcomputer Systems Technology B.A., M.A., Appalachian State University

Hulcher, Mark C.

Automotive Mechanics

Vocational Diploma, Forsyth Technical Institute; Specialist Certificate in Electronics Engine Controls; A.A.S., Guilford Technical Community College

Hutslar, Sarah E.

Dean, Institutional Research B.S., The Ohio State University; M.Ed., Miami University; Ph.D., The Ohio State University

Jacobson, Sheri L.

Associate Degree Nursing B.S.N., University of North Carolina at Greensboro

Jarvis, Kenneth W.

Comptroller

B.S., M.A., Appalachian State University

Johnson, Shirley L.

Associate Degree Nursing Vocational Diploma, Practical Nursing, Forsyth Technical Community College; B.S.N., Winston-Salem State University

Jolly, Drusilla B.

Life Sciences

B.S., M.A., Appalachian State University

Jones, Jerry A.

Business Computer Programming B.S., North Carolina State University

Jones, R. Shelton

Associate Dean, Occupational Extension II

B.S., M.S., Virginia Polytechnic Institute; undergraduate work William and Mary College-Norfolk; advanced study, University of North Carolina at Greensboro; further study Western Michigan University, Virginia Commonwealth University Extension

Kahl, George H., Jr.

Dean, Engineering Technologies A.A.S., Milwaukee Institute of Technology; B.S., Stout University; undergraduate study Drake University; M.Ed., University of North Carolina at Greensboro; Journeyman Certificate, Diesel Mechanics

Kandara, Nicholas G.

Drafting and Design Engineering Technology

B.A., Guilford College

Keith, Rebecca A.

Budget Officer

B.A.S., Guilford College, North Carolina CPA

Kekesi, Alexander J.

Social Sciences

B.A., Western Carolina University; M.A., University of Virginia

Kinch, Virgie C.

Horticulture Technology

A.A.S., Forsyth Technical College; B.S., Winston-Salem State University; M.S., North Carolina State University

King, Charles R.

Counselor

A.A., University of North Carolina at Wilmington; A.B., East Carolina University; M.Ed., Ed.D, University of North Carolina at Greensboro; NCC

King, Mary L.

Practical Nursing

R.N., Mayview Hospital School of Nursing; B.S.N., Winston-Salem State University

Labosky, Theodore P.

Periodicals Librarian

B.A., M.L.S., University of North Carolina at Greensboro

Lawing, Barry A.

Humanities

B.A., Mars Hill College; M.A., Wake Forest University

Lawson, Keith R.

Respiratory Care Technology A.A.S., Chowan College; A.A.S., Forsyth Technical Community College

Lee, Linda M.

Associate Dean, Arts and Sciences/ Department Chairperson, Humanities A.B., Wake Forest University; M.Ed., University of North Carolina at Greensboro

Lehmann, Kenneth L.

Business Administration

B.B.A., Western Reserve University; M.S., Postsecondary Technical Education, University of Akron; further graduate study, University of Illinois, Oberlin College, Case Western Reserve University, American Management Association

Lester, Joy K.

Pretechnical

A.A., Wingate Junior College; B.A., Clemson University; M.A.T., The Citadel

Lindsay, Carlton D.

Ford Outreach Program

Vocational Diploma, Forsyth Technical Institute; Vocational Diploma, Forsyth Technical Community College; ASE Certified; EPA Certified; Ford Motor Company Certified

Lore, B. Ann

Associate Degree Nursing

R.N., Robeson County Memorial School of Nursing; B.A., Pfeiffer College; M.Ed., University of North Carolina at Greensboro; Ed.D., Nova University; Fellowship, Appalachian Geriatric Education Center, Bowman Gray School of Medicine

Lowery, Luther M.

Associate Degree Nursing

R.N., B.S.N., North Carolina A & T State University; further graduate study, University of North Carolina at Greensboro and North Carolina A & T State University

Lundgren, Loren W.

Business Administration

B.S., Northern Illinois University; graduate study Northern Illinois University, North Carolina State University, University of North Carolina at Greensboro

Marion, William M.

Architectural Technology

A.A.S., Forsyth Technical Institute; B.A., University of North Carolina at Charlotte

Marotz, William H.

Dean, Information Systems B.S., M.S., Stout State University; further graduate studies, West Virginia University

McComb, Beverly A.

Director, Administrative Computer Center

A.A.S., Forsyth Technical College

McCoy, Paula J.

Coordinator, Assessment/Retention B.S., North Carolina A & T State University

McInnis, Nancy L.

Associate Degree Nursing R.N., B.S.N., Lenoir Rhyne College; M.S.N., Emory University

McLendon, George

Director, Admissions

B.S., Winston-Salem State University; M.S., North Carolina A & T State University; further graduate study, Lenoir Rhyne College, Wake Forest University, University of North Carolina at Greensboro; NCC

McSwain, George L., Jr.

Department Chairperson, Law Enforcement Technology

B.S., M.A., Appalachian State University; Diploma, North Carolina S.B.I. Academy

Metts, Alvin S.

Department Chairperson, Physics B.S., North Carolina State University; graduate study, Radford College, University of North Carolina at Greensboro, and A & T State University; Certificate in Computer Programming, Winston Salem State University

Mobley, Patricia A.

Associate Degree Nursing R.N., Crawford W. Long Memorial Hospital; B.S.N., Winston-Salem State University; M.S.N., University of North Carolina at Greensboro

Morgan, Gwen R.

Associate Degree Nursing B.S.N., University of North Carolina at Charlotte.

Mutton, Albert F., Jr.

Associate Dean, Business Technologies

B.S., M.S., East Tennessee State University; registered cardiopulmonary technologist

Neas, Jan P.

Supervisor of Cashier in Accounts Receivable and Special Funds A.A.S., Forsyth Technical Community College; B.S., Gardner-Webb College Neumann, Leslie L.

Department Chairperson, Social Sciences

B.S., Wayne State University; M.A.Ed., Wake Forest University

Newman, Carol B.

Pretechnical

A.B., Meredith College; M.S., Florida State University

O'Connor, Brian R.

Lead Instructor, Individualized Learning Center

B.A., Saint Joseph's College; graduate study, Wake Forest University

O'Pharrow, Richard L.

Physics

B.S., Johnson C. Smith University; M.A.T.M., University of Detroit; further graduate study, Fisk University and Vanderbilt University

Owens, Florence

Associate Degree Nursing

R.N., B.S.N., Winston-Salem State University; graduate study, University of North Carolina at Greensboro

Parker, Carol W.

PC Administrator, Business Technologies

Diploma, King's Business College; further study, Forsyth Technical Community College

Patton, Gray R.

Microcomputer Systems Technology B.A., University of North Carolina at Greensboro

Perkins, Jean R.

Coordinator, Marketing and Publications B.A., Winston-Salem State University; further study, Radford College and Forsyth Technical College; special training in Advertising and Public Relations; certificate in Multi-Media Communications

Petree, Robin N.

Department Chairperson, Machinist Vocational Diploma, A.A.S., Forsyth Technical Institute; further study, University of North Carolina at Charlotte

Phelps, Susan Q.

Dean, Student Services

B.A., University of South Carolina; M.A., Appalachian State University; Ph.D., University of North Carolina at Greensboro

Pope, Bonnie G.

Associate Degree Nursing

R.N., B.S.N., University of North Carolina at Charlotte; Certified American Childbirth Educator; graduate study, University of North Carolina at Greensboro

Potter, Linda S.

Associate Degree Nursing

R.N., B.S.N., Lenoir Rhyne College; Certified ANA Medical-Surgical Nurse; graduate study, University of North Carolina at Greensboro

Proctor, Frances W.

Associate Dean, Occupational Extension/Health and Related

R.N., Rex Hospital School of Nursing; B.S., Saint Joseph's College

Queen, Garland W.

Electronics Engineering Technology B.S.E.E., University of North Carolina at Charlotte; M.S.E.E., Clemson University

Rajacich, Carolyn T.

Assistant Dean, Health Technologies/ Department Chairperson, Practical Nursing

R.N., Rowan Memorial Hospital; B.S.N., Winston-Salem State University; further graduate study, University of North Carolina at Greensboro

Reeves, Derrick A.

Welding

Vocational Diploma, Forsyth Technical Institute; further study, Forsyth Technical Community College

Rich, Marilyn W.

Coordinator/Instructor, Compensatory Education

B.S., North Carolina Central University

Richardson, Colleen R.

Counselor

B.A., Appalachian State University; M.Ed., Wake Forest University

Ritchie, Clyde F., Jr.

Radiologic Technology

A.R.R.T.(R)., North Carolina Memorial Hospital, University of North Carolina at Chapel Hill; B.S., Alderson-Broaddus College

Robbins, Frederick A.

Manufacturing Engineering Technology

Vocational Diploma, A.A.S., Forsyth Technical Institute

Rogers, Jerry D.

Director, Auxiliary and Physical Plant Services

Experience in retail management; National Association of College Stores, Management Survey Certificate

Roth, Thomas M.

Department Chairperson, Automation/ Robotics Technology

B.S.E.E., Rice University

Rouse, Jan O.

Associate Degree Nursing B.S.N., M.S.N., East Carolina University

Rousseau, James A.

Vice President, Planning and Development

B.S., Knoxville College; M.S., N.C. A & T State University; Ed.S., Appalachian State University; further graduate study, Virginia State College, Virginia Polytechnic Institute and State University

Rubush, William S.

Associate Degree Nursing B.S.N., Florida State University

Sallee, Athene W.

Pretechnical

B.A., Wayland College; M.Ed., University of Oklahoma; M.A., Appalachian State University; further graduate study, University of North Carolina at Greenshoro

Sample, Phyllis D.

Assistant Dean, Health Technologies Coordinator, Associate Degree Nursing R.N., B.S.N., University of Bridgeport; M.Ed., North Carolina A & T State University

Saylor, Richard L.

Mathematics

B.S., Wake Forest University; M.Div., Reformed Theological Seminary; Ph.D., Rice University

Sexton, Gloria L.

Coordinator, Single Parents/WINS Program

B.A., Saint Augustine College; M.S., North Carolina A & T State University

Shepherd, J. Bruce

Director, Records and Recruitment B.S., M.A., Appalachian State University; Ed.S., University of North Carolina at Greensboro; Ed.D., University of North Carolina at Greensboro; additional graduate work, East Carolina University, Western Carolina University

Sheppard, Perry W.

Respiratory Care Technology R.R.T., C.C.P.T., C.R.T.T., R.P.F.T., A.A.S., Forsyth Technical Community College; B.S., Gardner-Webb University; further study, Medical College of Georgia

Sherrill, Sharon L.

Humanities

A.B., Guilford College; M.A., Wake Forest University; Ed.D., University of North Carolina at Greensboro

Shields, Sheila B.

Social Sciences

B.A., Appalachian State University: M.A.Ed., Wake Forest University

Shirk, Robert D.

Pretechnical

B.R.E., Piedmont Bible College; B.A., Salem College; M.S.H.E., University of North Carolina at Greensboro; Ed.S., University of North Carolina at Greensboro

Shoaf, Donald C.

Assistant Vice President/Dean, Health **Technologies**

A.R.R.T.(R), A.A.S., Forsyth Technical College; A.B., High Point College: M.Ed., University of North Carolina at Greensboro; further graduate study. University of North Carolina at Greensboro

Sigmon, Shelley R.

Humanities

B.A., University of North Carolina at Charlotte; M.A., University of North Carolina at Chapel Hill

Sineath, Alice B.

Department Chairperson, Accounting B.S.B.A., M.A., Appalachian State University, North Carolina C.P.A.

Sineath, B. J.

Department Chairperson, Microcomputer Systems Technology

A.A., Rockingham Community College; B.S., Appalachian State University: M.Ed., Ed.D., University of North Carolina at Greensboro

Slade Jr., John R.

Humanities

B.A., University of North Carolina at Chapel Hill; M.S., North Carolina A & T State University

Skinner, Sara B.

Mathematics

A.B., Atlantic Christian College; M.A.T., University of North Carolina at Chapel Hill; further graduate study, University of North Carolina at Greensboro

Smith, Rodney T.

Department Chairperson, Welding Vocational Diploma, Forsyth Technical Institute; B.R.E., Piedmont Bible College

Smith, Teresa P.

Nuclear Medicine Technology C.N.M.T., A.R.R.T.(N), A.A.S., Forsyth Technical College; B.S., Greensboro College; M.S., North Carolina A & T State University

Snider, Jerri R.

Microcomputer Systems Technology A.A.S., Forsyth Technical Community College; B.S., High Point University; M.B.A., Appalachian State University

Spurgeon, Thelma W.

Administrative Office Technology B.A., Bennett College; M.B.E., University of North Carolina at Greensboro

Staley, Thomas R.

Department Chairperson, Business Administration

B.S., Appalachian State University; M.Ed., University of North Carolina; further graduate study, Guilford College, North Carolina State University

Stoltz, Herbert E. Automotive Mechanics

Disc Brake School, Automotive Tuneup School, G.M. Training Center: Ford Motor Company Training; experience in the field of automotive mechanics

Suggs, Sandra W.

Admissions Counselor B.A., Wingate College

Sutphin, Donald G.

Department Chairperson, Drafting & Design Engineering Technology Vocational Diploma, Forsyth Technical Institute; A.A.S., Davidson County Community College; B.E.T., University of North Carolina at Charlotte; further study at North Carolina A & T

State University and University of North

Carolina at Charlotte

Tarr, Jeanette L.

Life Sciences

B.S., M.A., Ed.S., Appalachian State University

Taylor, Thomas A.

Life Sciences

B.S., M.S., North Carolina State University; credit toward Ph.D., North Carolina State University; additional graduate study, University of North Carolina at Greensboro

Tennis, Heidi A.

Physical Education

B.S., Grand Valley State College; M.A., Western Michigan University

Tobias, Carole K.

Microcomputer Systems Technology B.S., University of South Carolina; additional study, The Citadel

Trotter, Donald L.

Department Chairperson, Electronics **Engineering Technology**

B.S.E.E., North Carolina State University; North Carolina Registered Professional Engineer

Tuttle, Jacqueline M.

Pretechnical

B.S., High Point College

Tuttle, Jeffrey L.

Department Chairperson, Banking and Finance

B.S., M.A., Appalachian State University

Tyndall, E. Ann

Director, Small Business Center B.S., M.S., East Carolina University; Ph.D., University of North Carolina at Greensboro

Tyndall, Robert A.

Physics

B.S., M.A., East Carolina University; further graduate study, University of North Carolina at Greensboro

VanderKlok, Rebecca M.

Director, Student Financial Services A.A.S., Forsyth Technical College; B.S.A.S., Winston-Salem State University; further study UNC-Greensboro

VanHorn, JoAnn E.

Department Chairperson, Respiratory Care Technology

C.R.T.T., R.R.T., A.A.S., Forsyth Technical College

Vestal, Betty D.

Mathematics

B.S., Appalachian State University; M.A., Wake Forest University; further graduate study, University of North Carolina at Greensboro

Watts, Rosemary S.

Practical Nursing

B.S.N., University of North Carolina at Greensboro

Weaver, Larry V.

Administrative Assistant, Personnel and Evening Programs

A.A.S., Rowan Technical Institute; A.A.S., Forsyth Technical College; B.S.A.S., Winston Salem State University; M.Ed., University of North Carolina at Greensboro

Weiss, James B.

Coordinator, Literacy Recruitment B.A., University of North Carolina at Chapel Hill

Wheat, William H.

Electronics Engineering Technology B.S.E.E., University of Iowa

Whisnant, Patricia N.

Department Chairperson, Early Child-hood Associate

B.A., Wake Forest University; M.Ed., University of North Carolina at Greensboro

White, Linda H.

Associate Degree Nursing

B.S.N., University of Alabama; M.S.N., Vanderbilt University

Wilder, William B.

Department Chairperson, Automotive Mechanics

Vocational Diplima, Forsyth Technical Institute; A.A.S., Guilford Technical Community College; ASE Certified; Specialist Certificate in Electronic Engine Controls; additional study, General Motors Training Centers, Ford Motor Company Training Center, and Chowan College

Wiles, Rebecca M.

Practical Nursing

A.A., Chipola Junior College; B.S.N., University of Florida

Williams, Ann M.

Mathematics

B.A., St. Andrews College; M.A., University of North Carolina at Chapel Hill

Williams, L. T.

Assistant Vice President and Dean, Continuing Education

B.S., Western Carolina University; M.Ed., University of North Carolina at Greensboro; further graduate study, North Carolina State University

Wood, E. Lorraine

Admissions Counselor

B.S., North Carolina Central University; further study, Forsyth Technical College

Worley, Ernestine D.

Practical Nursing

B.S.N., Hampton University; M.Ed., Wake Forest University; M.S.N., University of North Carolina at Greensboro

Wright, Mark F.

Humanities

B.A., M.A., Wake Forest University

Yena, Sallie S.

Department Chairperson, Marketing and Retailing

A.B., Catawba College; M.A., Appalachian State University

SUPPORT PERSONNEL

Adams, Leigh Ann

Secretary, Economic Development

Angell, W. Kay

Secretary, Associate Dean of Occupational Extension I

Bailey, Dorothy A.

Switchboard Operator

Bayse, Audrey G.

Secretary, Assessment/Retention

Bergstrom, Barbara J.

Secretary, Arts and Sciences

Bibey, Angela S.

Secretary, Associate Dean of Community Service

Black, JoAnn

Bookkeeper/Cashier

Blackburn, Ruby M.

Switchboard Operator, Continuing Education

Bloom, Carol C.

Secretary, Employment Assistance

Bowen, Karen A.

Staff Associate, Business Technologies

Brisbon, Annette

Housekeeper

Brooks, Yvonne P.

Secretary, Business Office

Burnette, Carroll

Maintenance Mechanic

Bush, Pamalia J.

Housekeeper Chandler, Terri S.

Secretary, Counseling Center

Charles, Frances N.

Executive Secretary, President's Office

Cofer, Mona H.

Secretary, Dean of Student Services

Cook, A. Dawn

Secretary, Admissions

Cook, Gwen

Secretary, Adult Basic Education and Adult High School

Corn, Ricky A.

Print Production Specialist

Cranford, Vickie J.

Secretary, Associate Dean of Occupational Extension/Health Related

Cremedy, Castina C. Housekeeper

Crosby, Bonita P.

Housekeeper

Culler, Norma

Secretary, Admissions

Dalton, Sandra J.

Secretary, Admissions

DeWitt, Linda R.

PC Lab Assistant, Business Technologies

Dickens, Carolyn M.

Secretary, Dean of Continuing Education

Dillard, Rose B.

Secretary, Pretechnical

Edwards, Michael J.

Maintenance Mechanic

Farmer, Jessie M.

Secretary, Continuing Education

Fishel, Ruby B.

Secretary, Continuing Education

Flemming, Arthur L.

Custodian

Fulp, Paula W.

Secretary, Associate Dean of Literacy Programs

Gathings, Cynthia J.

Secretary, Vice President of Planning and Development

Gordon, Margaret B.

Secretary, Associate Dean of Occupational Extension

Greely-DuBose, Jacqueline

Secretary, Student Activities

Greene, Marilyn B.

Secretary, Continuing Education

Griffin, Krista

Secretary, Admissions

Griffin, Linda R.

Records Technician

Grubbs, Julia S.

Secretary, Dean of Health Technologies

Hairston, Barbara A.

Housekeeper

Hayes, T. Annette

Secretary, Business Technologies

Hix, Michelle A.

Secretary, Admissions

Hough, James M.

Painter

James, Dolores J.

Secretary, Continuing Education

Jeske, Mary L.

Secretary, Purchasing

Kiger, Marsha C.

Secretary, Continuing Education

Larkin, Betty L.

Housekeeper

Lehman, Carol R.

Secretary, Student Financial Services

Leonard, L. Jill

Secretary, Faculty/Staff Service Center

Leonard, William T.

Maintenance Mechanic

Lindsay, Vickie L.

Records Specialist/Secretary

Link, Doris C.

Secretary, Admissions

Long, Connie W.

Accounts Payable Bookkeeper

Martin, Sheila H.

Staff Associate, Business Office

Matthews, Hoke R.

Groundskeeper

McCaskill, Michael L.

Groundskeeper

McCormick, Karen M.

Secretary, Administrative Assistant

Mecum, Anna F.

Secretary, Dean of Engineering Technologies

Millaway, Louise J.

Switchboard Operator

Morgan, Tammy L.
Bookstore Clerk

Myers, Marcia M. Mailroom Clerk

Myrick, Martha H.

Receptionist/Secretary, Financial Aid

Nelson, Christen Housekeeper

O'Neal, Pamela V.

Housekeeper *Palmer*, *Gentry A*.

Daytime Custodian

*Perryman, Juanita S.*Secretary, Fire Service Training

Piercey, Barbara A.

Secretary, Director of Library Services

Pike, Ruth M.

Secretary, Continuing Education

Powell, Norma J. Housekeeper

Ragland-Todd, Judith A.

Secretary, Continuing Education

Reynolds, Gerald W.
Staff Associate, CIM Project

Richardson, Margaret S.

Secretary, Marketing and Publications *Royal, Shannon A.*

Assistant Textbook Buyer, Bookstore

Saddler, James G.
Maintenance Mechanic

Sheff, Michael T.

Custodian Shirk, Louise R.

Cashier, Business Office

Shumate, Ann P.

Secretary, Dean of Arts and Sciences

Silverman, Cheri E.

Records Specialist/Secretary Simpson, Donna L.

Housekeeper

Sizemore, Rhonda C.

Receptionist/Information Specialist

Slater, Shirley L.

Executive Secretary, President's Office

Smith, Virginia I.

Secretary, Single Parents/WINS and JTPA

Smith, Willie

Custodian

Spanolia, Bobbie O.
Secretary Admission

Secretary, Admissions Springs, Ruth E.

Housekeeper

Squire, Annette B.

Secretary, Admissions

Stuckey, Allene Housekeeper

Swaim, Cathy S.
Staff Associate, Business Office

Tan, Chio H.

Data Systems Specialist, Continuing Education

Tinnes, Gary W.

Maintenance Mechanic

Triplette, Amy L.

Secretary, Associate Dean of Health Technologies

Turner, Martha A. Housekeeper

Vernon, Carole S.

Secretary, Administrative Assistant

Wallace, Betsy

Tutor Coordinator, ILC

Warner, Susan L.

Admissions Technician

Weaver, Cindy D.

Counselor Technician

Webb, Minnie Elnora

Records Specialist/Secretary

Whitley, Dawn W.

Secretary, Director of Auxiliary and Physical Plant Services

Williams, Flossie M.
Housekeeper

Williams, Leola B.
Housekeeper

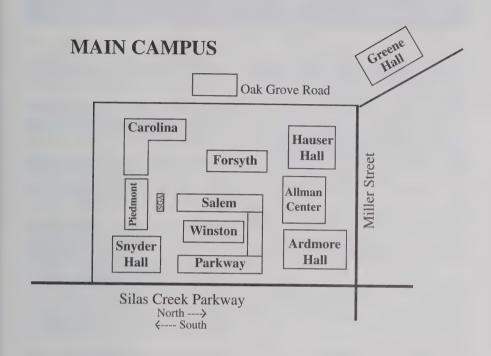
Williams, Tracey M.

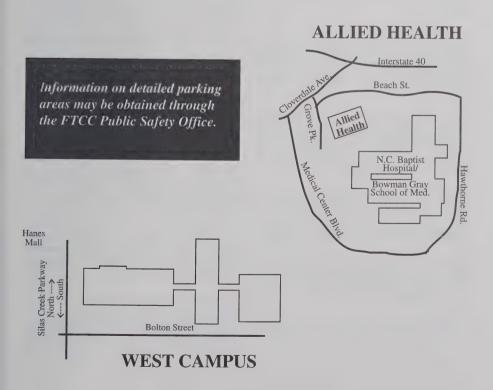
Secretary, Associate Dean of Occupational Extension I

Williamson, Paul A. Groundskeeper

Woody, Susan E.

Secretary, Dean of Information Services





What's It Mean



To help you with words used by FTCC faculty and staff, here is a list of frequently-used terms and their definitions.



Academic standing: Entering students must earn a grade point average (GPA) of 2.0 by the end of their first quarter and maintain a GPA of 2.0 thereafter.

Accreditation: Various professional agencies appoint teams of evaluators who periodically study Forsyth Tech's programs and services to assure that they meet standards of quality and are relevant to the college's purpose.

Adult Continuing Education: This division provides noncredit courses for citizens who are 18 years old or older. The opportunities are based on individual need and previous educational achievement.

Advisor: A person who approves the selection of courses for your chosen field of study and is usually a faculty member or counselor in the Counseling Center.

Associate in Applied Science: A two-year technical degree that prepares you for the job market.

Associate in Arts: A two-year college transfer program that concentrates on humanities and social sciences for those planning to continue in a bachelor's degree program in a senior college.

Associate in Science: A two-year college transfer program that concentrates on mathematics and physical sciences for those planning to continue in a bachelor's degree program in a senior college.

Audit: A course for which you pay tuition and fees but do not receive credit. An Audit Request Form is available in the Counseling Center or from the appropriate division dean.

Catalog: The publication you can get in the Admission's Office that contains almost everything you need to know about FTCC and its programs.

Certificate: A program of study generally requiring one year or less of course work.

Contact hours: The actual number of hours in class per week, per course.

Counselor: A person who provides you with personal, academic, vocational, and career counseling.

Credit hours: Every class is worth a value called a credit hour. Every degree, diploma and certificate program requires you to take a certain number of credit hours.

Cumulative grade point average (GPA): The average of your grades for all classes taken at FTCC. It is calculated by adding all completed quality points and dividing by the number of credit hours taken.

Curriculum: The program of courses required to receive a degree, diploma or certificate in your chosen area of study.

Diploma: Vocational programs that usually take four quarters to complete. Courses are not designed to transfer to a 4-year school.

Adult High School is a program that allows adults to complete high school courses and credits for an Adult High School diploma.

GED - Persons who have not completed high school may choose to take a series of tests that correspond to most high school curriculums to determine if they qualify for a high school equivalency diploma.

Division: An academic area within the college. FTCC has five: Arts and Sciences, Business Technologies, Continuing Education, Engineering Technologies, and Health Technologies.

Drop/Add: When you adjust your schedule by dropping courses you registered for but no longer wish to take, and/or adding other courses. The Drop/Add period is limited and is indicated on the calendar.

Electives / Unrestricted Electives: A course which is not specifically named in your curriculum, but is required to graduate. Check with your academic advisor before choosing an elective.

Financial aid: Grants (monies given to students through the federal and state government), scholarships, and student loans are available to qualified students to help you meet your educational expenses.

Full-time student: A student who is taking a least 12 credit hours. A student who is registered for 11 credit hours or fewer in one quarter is a part-time student.

Independent study: A credit course, allowed only in special circumstances, in which you work individually with a faculty member.

Plagiarize: This occurs when you use ideas or words of another as your own without crediting the source. Plagiarism is a form of cheating.

Practicum: A course that offers hands-on experience in the workplace.

Prerequisites: Preliminary skills, knowledge or other courses which are required before your enrollment in a particular course. Prerequisites are listed by course and course description in the catalog. Descriptions are alphabetized by course prefix.

Pretechnical program: This program offers a series of courses for preparation, remediation, and academic guidance if you do not meet the entrance requirements for the curriculum of your choice.

Probation: You are placed on academic probation when your GPA falls below 2.0.

Proficiency test: You may, under certain conditions, take an exam and receive credit for a course without having taken the course. You will not receive a grade, just the credit hours.

SGA - Student Government Association: You can get involved in SGA activities by contacting the student activities facilitator in the Carolina Annex.

Special credit student: A student who is taking one or more curriculum credit courses, but who is not yet enrolled in a specific curriculum.

Student activity fee: The fee you pay every quarter that covers activities, (cookouts, dances, etc.) part of graduation expenses, and the student newspaper.

Transcript: A printed record of every course you've taken at FTCC and the grades you've received. An official transcript is stamped with the seal of the college. Transcripts are obtained, at a cost of \$2.00, from the Records Office.

Tuition hold: If you withdraw from a course, your tuition, in specific situations, can be credited to your account for future use.

Workstudy: A federally supported program through which students, primarily from low-income families, are given preference for part-time employment on campus.

Notes

